

$F_{n+d}^k$	$k = 1$	$k = 2$	$k = 3$	$k = 4$
$d = 1$	$F_n + F_{n+1} - F_{n+2} = 0$	$F_n^2 - 2F_{n+1}^2 - 2F_{n+2}^2 + F_{n+3}^2 = 0$	$F_n^3 + 3F_{n+1}^3 - 6F_{n+2}^3 - 3F_{n+3}^3 + F_{n+4}^3 = 0$	$F_n^4 - 5F_{n+1}^4 - 15F_{n+2}^4 + 15F_{n+3}^4 + 5F_{n+4}^4 - F_{n+5}^4 = 0$
$d = 2$	$F_n - 3F_{n+2} + F_{n+4} = 0$	$F_n^2 - 8F_{n+2}^2 + 8F_{n+4}^2 - F_{n+6}^2 = 0$	$F_n^3 - 21F_{n+2}^3 + 56F_{n+4}^3 - 21F_{n+6}^3 + F_{n+8}^3 = 0$	$F_n^4 - 55F_{n+2}^4 + 385F_{n+4}^4 - 385F_{n+6}^4 + 55F_{n+8}^4 - F_{n+10}^4 = 0$
$d = 3$	$F_n + 4F_{n+3} - F_{n+6} = 0$	$F_n^2 - 17F_{n+3}^2 - 17F_{n+6}^2 + F_{n+9}^2 = 0$	$F_n^3 + 72F_{n+3}^3 - 306F_{n+6}^3 - 72F_{n+9}^3 + F_{n+12}^3 = 0$	$F_n^4 - 305F_{n+3}^4 - 5490F_{n+6}^4 + 5490F_{n+9}^4 + 305F_{n+12}^4 - F_{n+15}^4 = 0$
$d = 4$	$F_n - 7F_{n+4} + F_{n+8} = 0$	$F_n^2 - 48F_{n+4}^2 + 48F_{n+8}^2 - F_{n+12}^2 = 0$	$F_n^3 - 329F_{n+4}^3 + 2256F_{n+8}^3 - 329F_{n+12}^3 + F_{n+16}^3 = 0$	$F_n^4 - 2255F_{n+4}^4 + 105985F_{n+8}^4 - 105985F_{n+12}^4 + 2255F_{n+16}^4 - F_{n+20}^4 = 0$
$d = 5$	$F_n + 11F_{n+5} - F_{n+10} = 0$	$F_n^2 - 122F_{n+5}^2 - 122F_{n+10}^2 + F_{n+15}^2 = 0$	$F_n^3 + 1353F_{n+5}^3 - 15006F_{n+10}^3 - 1353F_{n+15}^3 + F_{n+20}^3 = 0$	$F_n^4 - 15005F_{n+5}^4 - 1845615F_{n+10}^4 + 1845615F_{n+15}^4 + 15005F_{n+20}^4 - F_{n+25}^4 = 0$
$d = 6$	$F_n - 18F_{n+6} + F_{n+12} = 0$	$F_n^2 - 323F_{n+6}^2 + 323F_{n+12}^2 - F_{n+18}^2 = 0$	$F_n^3 - 5796F_{n+6}^3 + 104006F_{n+12}^3 - 5796F_{n+18}^3 + F_{n+24}^3 = 0$	$F_n^4 - 104005F_{n+6}^4 + 33489610F_{n+12}^4 - 33489610F_{n+18}^4 + 104005F_{n+24}^4 - F_{n+30}^4 = 0$
$d = 7$	$F_n + 29F_{n+7} - F_{n+14} = 0$	$F_n^2 - 842F_{n+7}^2 - 842F_{n+14}^2 + F_{n+21}^2 = 0$	$F_n^3 + 24447F_{n+7}^3 - 709806F_{n+14}^3 - 24447F_{n+21}^3 + F_{n+28}^3 = 0$	$F_n^4 - 709805F_{n+7}^4 - 598365615F_{n+14}^4 + 598365615F_{n+21}^4 + 709805F_{n+28}^4 - F_{n+35}^4 = 0$
$d = 8$	$F_n - 47F_{n+8} + F_{n+16} = 0$	$F_n^2 - 2208F_{n+8}^2 + 2208F_{n+16}^2 - F_{n+24}^2 = 0$	$F_n^3 - 103729F_{n+8}^3 + 4873056F_{n+16}^3 - 103729F_{n+24}^3 + F_{n+32}^3 = 0$	$F_n^4 - 4873055F_{n+8}^4 + 10754832385F_{n+16}^4 - 10754832385F_{n+24}^4 + 4873055F_{n+32}^4 - F_{n+40}^4 = 0$
$d = 9$	$F_n + 76F_{n+9} - F_{n+18} = 0$	$F_n^2 - 5777F_{n+9}^2 - 5777F_{n+18}^2 + F_{n+27}^2 = 0$	$F_n^3 + 439128F_{n+9}^3 - 33379506F_{n+18}^3 - 439128F_{n+27}^3 + F_{n+36}^3 = 0$	$F_n^4 - 33379505F_{n+9}^4 - 192866779890F_{n+18}^4 + 192866779890F_{n+27}^4 + 33379505F_{n+36}^4 - F_{n+45}^4 = 0$
$d = 10$	$F_n - 123F_{n+10} + F_{n+20} = 0$	$F_n^2 - 15128F_{n+10}^2 + 15128F_{n+20}^2 - F_{n+30}^2 = 0$	$F_n^3 - 1860621F_{n+10}^3 + 228841256F_{n+20}^3 - 1860621F_{n+30}^3 + F_{n+40}^3 = 0$	$F_n^4 - 228841255F_{n+10}^4 + 3461681664385F_{n+20}^4 - 3461681664385F_{n+30}^4 + 228841255F_{n+40}^4 - F_{n+50}^4 = 0$
$d = 11$	$F_n + 199F_{n+11} - F_{n+22} = 0$	$F_n^2 - 39602F_{n+11}^2 - 39602F_{n+22}^2 + F_{n+33}^2 = 0$	$F_n^3 + 7880997F_{n+11}^3 - 1568358006F_{n+22}^3 - 7880997F_{n+33}^3 + F_{n+44}^3 = 0$	$F_n^4 - 1568358005F_{n+11}^4 - 62111682072015F_{n+22}^4 + 62111682072015F_{n+33}^4 + 1568358005F_{n+44}^4 - F_{n+55}^4 = 0$
$d = 12$	$F_n - 322F_{n+12} + F_{n+24} = 0$	$F_n^2 - 103683F_{n+12}^2 + 103683F_{n+24}^2 - F_{n+36}^2 = 0$	$F_n^3 - 33385604F_{n+12}^3 + 10750060806F_{n+24}^3 - 33385604F_{n+36}^3 + F_{n+48}^3 = 0$	$F_n^4 - 10750060805F_{n+12}^4 + 1114587804384010F_{n+24}^4 - 1114587804384010F_{n+36}^4 + 10750060805F_{n+48}^4 - F_{n+60}^4 = 0$
$d = 13$	$F_n + 521F_{n+13} - F_{n+26} = 0$	$F_n^2 - 271442F_{n+13}^2 + 271442F_{n+26}^2 - F_{n+39}^2 = 0$	$F_n^3 + 141421803F_{n+13}^3 - 73681030806F_{n+26}^3 + 141421803F_{n+39}^3 + F_{n+52}^3 = 0$	$F_n^4 - 73681030805F_{n+13}^4 - 20000200044801615F_{n+26}^4 + 20000200044801615F_{n+39}^4 - 73681030805F_{n+52}^4 - F_{n+65}^4 = 0$
$d = 14$	$F_n - 843F_{n+14} + F_{n+28} = 0$	$F_n^2 - 710648F_{n+14}^2 + 710648F_{n+28}^2 - F_{n+42}^2 = 0$	$F_n^3 - 599075421F_{n+14}^3 + 505019869256F_{n+28}^3 - 599075421F_{n+42}^3 + F_{n+56}^3 = 0$	$F_n^4 - 505019869255F_{n+14}^4 + 358890855026457985F_{n+28}^4 - 358890855026457985F_{n+42}^4 + 505019869255F_{n+56}^4 - F_{n+70}^4 = 0$

$F_{n+d}^k$	$k = 5$	$k = 6$
$d = 1$	$F_n^5 + 8F_{n+1}^5 - 40F_{n+2}^5 - 60F_{n+3}^5 + 40F_{n+4}^5 + 8F_{n+5}^5 - F_{n+6}^5 = 0$	$F_n^6 - 13F_{n+1}^6 - 104F_{n+2}^6 + 260F_{n+3}^6 + 260F_{n+4}^6 - 104F_{n+5}^6 - 13F_{n+6}^6 + F_{n+7}^6 = 0$
$d = 2$	$F_n^5 - 144F_{n+2}^5 + 2640F_{n+4}^5 - 6930F_{n+6}^5 + 2640F_{n+8}^5 - 144F_{n+10}^5 + F_{n+12}^5 = 0$	$F_n^6 - 377F_{n+2}^6 + 18096F_{n+4}^6 - 124410F_{n+6}^6 + 124410F_{n+8}^6 - 18096F_{n+10}^6 + 377F_{n+12}^6 - F_{n+14}^6 = 0$
$d = 3$	$F_n^5 + 1292F_{n+3}^5 - 98515F_{n+6}^5 - 417240F_{n+9}^5 + 98515F_{n+12}^5 + 1292F_{n+15}^5 - F_{n+18}^5 = 0$	$F_n^6 - 5473F_{n+3}^6 - 1767779F_{n+6}^6 + 31716035F_{n+9}^6 + 31716035F_{n+12}^6 - 1767779F_{n+15}^6 - 5473F_{n+18}^6 + F_{n+21}^6 = 0$
$d = 4$	$F_n^5 - 15456F_{n+4}^5 + 4979040F_{n+8}^5 - 34127170F_{n+12}^5 + 4979040F_{n+16}^5 - 15456F_{n+20}^5 + F_{n+24}^5 = 0$	$F_n^6 - 105937F_{n+4}^6 + 233908896F_{n+8}^6 - 10988845010F_{n+12}^6 + 10988845010F_{n+16}^6 - 233908896F_{n+20}^6 + 105937F_{n+24}^6 - F_{n+28}^6 = 0$
$d = 5$	$F_n^5 + 166408F_{n+5}^5 - 226995640F_{n+10}^5 - 2517418860F_{n+15}^5 + 226995640F_{n+20}^5 + 166408F_{n+25}^5 - F_{n+30}^5 = 0$	$F_n^6 - 1845493F_{n+5}^6 - 27918618104F_{n+10}^6 + 3433761185660F_{n+15}^6 + 3433761185660F_{n+20}^6 - 27918618104F_{n+25}^6 - 1845493F_{n+30}^6 + F_{n+35}^6 = 0$
$d = 6$	$F_n^5 - 1866294F_{n+6}^5 + 10783550415F_{n+12}^5 - 193502966580F_{n+18}^5 + 10783550415F_{n+24}^5 - 1866294F_{n+30}^5 + F_{n+36}^5 = 0$	$F_n^6 - 33489287F_{n+6}^6 + 3472269744021F_{n+12}^6 - 1118060107513635F_{n+18}^6 + 1118060107513635F_{n+24}^6 - 3472269744021F_{n+30}^6 + 33489287F_{n+36}^6 - F_{n+42}^6 = 0$
$d = 7$	$F_n^5 + 20608792F_{n+7}^5 - 504421503640F_{n+14}^5 - 14645596792740F_{n+21}^5 + 504421503640F_{n+28}^5 + 20608792F_{n+35}^5 - F_{n+42}^5 = 0$	$F_n^6 - 598364773F_{n+7}^6 - 425226729202904F_{n+14}^6 + 358465627698179660F_{n+21}^6 + 358465627698179660F_{n+28}^6 - 425226729202904F_{n+35}^6 - 598364773F_{n+42}^6 + F_{n+49}^6 = 0$
$d = 8$	$F_n^5 - 228929856F_{n+8}^5 + 23735910200640F_{n+16}^5 - 1115082531341570F_{n+24}^5 + 23735910200640F_{n+32}^5 - 228929856F_{n+40}^5 + F_{n+48}^5 = 0$	$F_n^6 - 10754830177F_{n+8}^6 + 52385143057980096F_{n+16}^6 - 115613987003806701410F_{n+24}^6 + 115613987003806701410F_{n+32}^6 - 52385143057980096F_{n+40}^6 + 10754830177F_{n+48}^6 - F_{n+56}^6 = 0$
$d = 9$	$F_n^5 + 2537281508F_{n+9}^5 - 1114384220824915F_{n+18}^5 - 84707861194807560F_{n+27}^5 + 1114384220824915F_{n+36}^5 + 2537281508F_{n+45}^5 - F_{n+54}^5 = 0$	$F_n^6 - 192866774113F_{n+9}^6 - 6438911835059578979F_{n+18}^6 + 37204031468397159741635F_{n+27}^6 + 37204031468397159741635F_{n+36}^6 - 6438911835059578979F_{n+45}^6 - 192866774113F_{n+54}^6 + F_{n+63}^6 = 0$
$d = 10$	$F_n^5 - 28145613744F_{n+10}^5 + 52364858308310640F_{n+20}^5 - 6440451813224963730F_{n+30}^5 + 52364858308310640F_{n+40}^5 - 28145613744F_{n+50}^5 + F_{n+60}^5 = 0$	$F_n^6 - 3461681649257F_{n+10}^6 + 792123208168133386896F_{n+20}^6 - 11982447717597957116914410F_{n+30}^6 + 11982447717597957116914410F_{n+40}^6 - 792123208168133386896F_{n+50}^6 + 3461681649257F_{n+60}^6 - F_{n+70}^6 = 0$
$d = 11$	$F_n^5 + 312111123992F_{n+11}^5 - 2459808943529652040F_{n+22}^5 - 489514340299236329940F_{n+33}^5 + 2459808943529652040F_{n+44}^5 + 312111123992F_{n+55}^5 - F_{n+66}^5 = 0$	$F_n^6 - 62111682032413F_{n+11}^6 - 97415813528493127668104F_{n+22}^6 + 3857958460709042279828238260F_{n+33}^6 + 3857958460709042279828238260F_{n+44}^6 - 97415813528493127668104F_{n+55}^6 - 62111682032413F_{n+66}^6 + F_{n+77}^6 = 0$
$d = 12$	$F_n^5 - 3461486193606F_{n+12}^5 + 115562692723392864015F_{n+24}^5 - 37210828163121010140820F_{n+36}^5 + 115562692723392864015F_{n+48}^5 - 3461486193606F_{n+60}^5 + F_{n+72}^5 = 0$	$F_n^6 - 1114587804280327F_{n+12}^6 + 11981771105832231122419221F_{n+24}^6 - 1242293991679335809099081088035F_{n+36}^6 + 1242293991679335809099081088035F_{n+48}^6 - 11981771105832231122419221F_{n+60}^6 + 1114587804280327F_{n+72}^6 - F_{n+84}^6 = 0$
$d = 13$	$F_n^5 + 38387958471208F_{n+13}^5 - 5428914300687403749640F_{n+26}^5 - 2828474770800748512253260F_{n+39}^5 + 5428914300687403749640F_{n+52}^5 + 38387958471208F_{n+65}^5 - F_{n+78}^5 = 0$	$F_n^6 - 20000200044530173F_{n+13}^6 - 1473640784501490735968728904F_{n+26}^6 + 400009475462009215542672231608660F_{n+39}^6 + 400009475462009215542672231608660F_{n+52}^6 - 1473640784501490735968728904F_{n+65}^6 - 20000200044530173F_{n+78}^6 + F_{n+91}^6 = 0$

$F_{n+d}^k$	$k = 7$	$k = 8$
$d = 1$	$F_n^7 + 21F_{n+1}^7 - 273F_{n+2}^7 - 1092F_{n+3}^7 + 1820F_{n+4}^7 + 1092F_{n+5}^7 - 273F_{n+6}^7 - 21F_{n+7}^7 + F_{n+8}^7 = 0$	$F_n^8 - 34F_{n+1}^8 - 714F_{n+2}^8 + 4641F_{n+3}^8 + 12376F_{n+4}^8 - 12376F_{n+5}^8 - 4641F_{n+6}^8 + 714F_{n+7}^8 + 34F_{n+8}^8 - F_{n+9}^8 = 0$
$d = 2$	$F_n^7 - 987F_{n+2}^7 + 124033F_{n+4}^7 - 2232594F_{n+6}^7 + 5847270F_{n+8}^7 - 2232594F_{n+10}^7 + 124033F_{n+12}^7 - 987F_{n+14}^7 + F_{n+16}^7 = 0$	$F_n^8 - 2584F_{n+2}^8 + 850136F_{n+4}^8 - 40062659F_{n+6}^8 + 274715376F_{n+8}^8 - 274715376F_{n+10}^8 + 40062659F_{n+12}^8 - 850136F_{n+14}^8 + 2584F_{n+16}^8 - F_{n+18}^8 = 0$
$d = 3$	$F_n^7 + 23184F_{n+3}^7 - 31721508F_{n+6}^7 - 2410834608F_{n+9}^7 + 10212563270F_{n+12}^7 + 2410834608F_{n+15}^7 - 31721508F_{n+18}^7 - 23184F_{n+21}^7 + F_{n+24}^7 = 0$	$F_n^8 - 98209F_{n+3}^8 - 569219364F_{n+6}^8 + 183255151716F_{n+9}^8 + 3288411889126F_{n+12}^8 - 3288411889126F_{n+15}^8 - 183255151716F_{n+18}^8 + 569219364F_{n+21}^8 + 98209F_{n+24}^8 - F_{n+27}^8 = 0$
$d = 4$	$F_n^7 - 726103F_{n+4}^7 + 10988739073F_{n+8}^7 - 3538373981506F_{n+12}^7 + 24252380937070F_{n+16}^7 - 3538373981506F_{n+20}^7 + 10988739073F_{n+24}^7 - 726103F_{n+28}^7 + F_{n+32}^7 = 0$	$F_n^8 - 4976784F_{n+4}^8 + 516236827536F_{n+8}^8 - 1139345433305859F_{n+12}^8 + 53524993973177376F_{n+16}^8 - 53524993973177376F_{n+20}^8 + 1139345433305859F_{n+24}^8 - 516236827536F_{n+28}^8 + 4976784F_{n+32}^8 - F_{n+36}^8 = 0$
$d = 5$	$F_n^7 + 20466831F_{n+5}^7 - 3433763031153F_{n+10}^7 - 4683652774492692F_{n+15}^7 + 51942505455478820F_{n+20}^7 + 4683652774492692F_{n+25}^7 - 3433763031153F_{n+30}^7 - 20466831F_{n+35}^7 + F_{n+40}^7 = 0$	$F_n^8 - 226980634F_{n+5}^8 - 422324934213714F_{n+10}^8 + 6388505818171063041F_{n+15}^8 + 785734276563348306376F_{n+20}^8 - 785734276563348306376F_{n+25}^8 - 6388505818171063041F_{n+30}^8 + 422324934213714F_{n+35}^8 + 226980634F_{n+40}^8 - F_{n+45}^8 = 0$
$d = 6$	$F_n^7 - 600940872F_{n+6}^7 + 1118060074024348F_{n+12}^7 - 6460151107712682744F_{n+18}^7 + 115922708067228704070F_{n+24}^7 - 6460151107712682744F_{n+30}^7 + 1118060074024348F_{n+36}^7 - 600940872F_{n+42}^7 + F_{n+48}^7 = 0$	$F_n^8 - 10783446409F_{n+6}^8 + 360011871566096036F_{n+12}^8 - 37326751982303806870484F_{n+18}^8 + 12019098216711818657616126F_{n+24}^8 - 12019098216711818657616126F_{n+30}^8 + 37326751982303806870484F_{n+36}^8 - 360011871566096036F_{n+42}^8 + 10783446409F_{n+48}^8 - F_{n+54}^8 = 0$
$d = 7$	$F_n^7 + 17373187209F_{n+7}^7 - 358465628296544433F_{n+14}^7 - 8773804718186221542108F_{n+21}^7 + 254742522926828280840020F_{n+28}^7 + 8773804718186221542108F_{n+35}^7 - 358465628296544433F_{n+42}^7 - 17373187209F_{n+49}^7 + F_{n+56}^7 = 0$	$F_n^8 - 504420793834F_{n+7}^8 - 302186099427257754114F_{n+14}^8 + 214747644640791586761179841F_{n+21}^8 + 181032009690022846439690310376F_{n+28}^8 - 181032009690022846439690310376F_{n+35}^8 + 214747644640791586761179841F_{n+42}^8 + 302186099427257754114F_{n+49}^8 + 504420793834F_{n+56}^8 - F_{n+63}^8 = 0$
$d = 8$	$F_n^7 - 505248088463F_{n+8}^7 + 115613986993051871233F_{n+16}^7 - 11987089399413604113179906F_{n+24}^7 + 563138041755530860142794270F_{n+32}^7 - 11987089399413604113179906F_{n+40}^7 + 115613986993051871233F_{n+48}^7 - 505248088463F_{n+56}^7 + F_{n+64}^7 = 0$	$F_n^8 - 23735905327584F_{n+8}^8 + 255160016908522421831136F_{n+16}^8 - 1242845402994387314669667142659F_{n+24}^8 + 2742959241270686661932088292925376F_{n+32}^8 - 2742959241270686661932088292925376F_{n+40}^8 + 1242845402994387314669667142659F_{n+48}^8 - 255160016908522421831136F_{n+56}^8 + 23735905327584F_{n+64}^8 - F_{n+72}^8 = 0$

$F_{n+d}^k$	$k = 9$	$k = 10$
$d = 1$	$F_n^9 + 55F_{n+1}^9 - 1870F_{n+2}^9 - 19635F_{n+3}^9 + 85085F_{n+4}^9 + 136136F_{n+5}^9 - 85085F_{n+6}^9 - 19635F_{n+7}^9 + 1870F_{n+8}^9 + 55F_{n+9}^9 - F_{n+10}^9 = 0$	$F_n^{10} - 89F_{n+1}^{10} - 4895F_{n+2}^{10} + 83215F_{n+3}^{10} + 582505F_{n+4}^{10} - 1514513F_{n+5}^{10} - 1514513F_{n+6}^{10} + 582505F_{n+7}^{10} + 83215F_{n+8}^{10} - 4895F_{n+9}^{10} - 89F_{n+10}^{10} + F_{n+11}^{10} = 0$
$d = 2$	$F_n^9 - 6765F_{n+2}^9 + 5826920F_{n+4}^9 - 718896255F_{n+6}^9 + 12905899435F_{n+8}^9 - 33789991248F_{n+10}^9 + 12905899435F_{n+12}^9 - 718896255F_{n+14}^9 + 5826920F_{n+16}^9 - 6765F_{n+18}^9 + F_{n+20}^9 = 0$	$F_n^{10} - 17711F_{n+2}^{10} + 39938305F_{n+4}^{10} - 12900072515F_{n+6}^{10} + 606303408205F_{n+8}^{10} - 4155934270787F_{n+10}^{10} + 4155934270787F_{n+12}^{10} - 606303408205F_{n+14}^{10} + 12900072515F_{n+16}^{10} - 39938305F_{n+18}^{10} + 17711F_{n+20}^{10} - F_{n+22}^{10} = 0$
$d = 3$	$F_n^9 + 416020F_{n+3}^9 - 10214227045F_{n+6}^9 - 13929802341840F_{n+9}^9 + 1058858447456810F_{n+12}^9 + 4485393816767864F_{n+15}^9 - 1058858447456810F_{n+18}^9 - 13929802341840F_{n+21}^9 + 10214227045F_{n+24}^9 + 416020F_{n+27}^9 - F_{n+30}^9 = 0$	$F_n^{10} - 1762289F_{n+3}^{10} - 183286867445F_{n+6}^{10} + 1058848233229765F_{n+9}^{10} + 340949131099984330F_{n+12}^{10} - 6118080637738407338F_{n+15}^{10} - 6118080637738407338F_{n+18}^{10} + 340949131099984330F_{n+21}^{10} + 1058848233229765F_{n+24}^{10} - 183286867445F_{n+27}^{10} - 1762289F_{n+30}^{10} + F_{n+33}^{10} = 0$
$d = 4$	$F_n^9 - 34111385F_{n+4}^9 + 24252142155120F_{n+8}^9 - 366865691151231195F_{n+12}^9 + 118129637457410270835F_{n+16}^9 - 809672583832254166752F_{n+20}^9 + 118129637457410270835F_{n+24}^9 - 366865691151231195F_{n+28}^9 + 24252142155120F_{n+32}^9 - 34111385F_{n+36}^9 + F_{n+40}^9 = 0$	$F_n^{10} - 233802911F_{n+4}^{10} + 1139334444463105F_{n+8}^{10} - 118129613205268115715F_{n+12}^{10} + 260712056344026731383005F_{n+16}^{10} - 12247917123244860240585987F_{n+20}^{10} + 12247917123244860240585987F_{n+24}^{10} - 260712056344026731383005F_{n+28}^{10} + 118129613205268115715F_{n+32}^{10} - 1139334444463105F_{n+36}^{10} + 233802911F_{n+40}^{10} - F_{n+44}^{10} = 0$
$d = 5$	$F_n^9 + 2517253805F_{n+5}^9 - 51942533145255670F_{n+10}^9 - 8713926619638084013785F_{n+15}^9 + 11885802349634698138102085F_{n+20}^9 + 131815567970543875225944136F_{n+25}^9 - 11885802349634698138102085F_{n+30}^9 - 8713926619638084013785F_{n+35}^9 + 51942533145255670F_{n+40}^9 + 2517253805F_{n+45}^9 - F_{n+50}^9 = 0$	$F_n^{10} - 27916772489F_{n+5}^{10} - 6388509251932233695F_{n+10}^{10} + 11885802297692164992846415F_{n+15}^{10} + 179796531357189379846787719705F_{n+20}^{10} - 22113511499098533834161133568913F_{n+25}^{10} - 22113511499098533834161133568913F_{n+30}^{10} + 179796531357189379846787719705F_{n+35}^{10} + 11885802297692164992846415F_{n+40}^{10} - 6388509251932233695F_{n+45}^{10} - 27916772489F_{n+50}^{10} + F_{n+55}^{10} = 0$
$d = 6$	$F_n^9 - 193501094490F_{n+6}^9 + 115922704584208899245F_{n+12}^9 - 215673966493600288985914680F_{n+18}^9 + 1246164141189193192051800496210F_{n+24}^9 - 22361508193995905188857487190748F_{n+30}^9 + 1246164141189193192051800496210F_{n+36}^9 - 215673966493600288985914680F_{n+42}^9 + 115922704584208899245F_{n+48}^9 - 193501094490F_{n+54}^9 + F_{n+60}^9 = 0$	$F_n^{10} - 3472236254411F_{n+6}^{10} + 37326750864243699460855F_{n+12}^{10} - 1246164141073270487467591596965F_{n+18}^{10} + 129204790474758830681614831956525130F_{n+24}^{10} - 41603541271901011840594247688561526862F_{n+30}^{10} + 41603541271901011840594247688561526862F_{n+36}^{10} - 129204790474758830681614831956525130F_{n+42}^{10} + 1246164141073270487467591596965F_{n+48}^{10} - 37326750864243699460855F_{n+54}^{10} + 3472236254411F_{n+60}^{10} - F_{n+66}^{10} = 0$

$F_{n+d}^k$	$k = 11$	$k = 12$
$d = 1$	$F_n^{11} + 144F_{n+1}^{11} - 12816F_{n+2}^{11} - 352440F_{n+3}^{11} + 3994320F_{n+4}^{11} + 16776144F_{n+5}^{11} - 27261234F_{n+6}^{11} - 16776144F_{n+7}^{11} + 3994320F_{n+8}^{11} + 352440F_{n+9}^{11} - 12816F_{n+10}^{11} - 144F_{n+11}^{11} + F_{n+12}^{11} = 0$	$F_n^{12} - 233F_{n+1}^{12} - 33552F_{n+2}^{12} + 1493064F_{n+3}^{12} + 27372840F_{n+4}^{12} - 186135312F_{n+5}^{12} - 488605194F_{n+6}^{12} + 488605194F_{n+7}^{12} + 186135312F_{n+8}^{12} - 27372840F_{n+9}^{12} - 1493064F_{n+10}^{12} + 33552F_{n+11}^{12} + 233F_{n+12}^{12} - F_{n+13}^{12} = 0$
$d = 2$	$F_n^{11} - 46368F_{n+2}^{11} + 273741216F_{n+4}^{11} - 231482415780F_{n+6}^{11} + 28483360113120F_{n+8}^{11} - 511146844211808F_{n+10}^{11} + 1338210835193414F_{n+12}^{11} - 511146844211808F_{n+14}^{11} + 28483360113120F_{n+16}^{11} - 231482415780F_{n+18}^{11} + 273741216F_{n+20}^{11} - 46368F_{n+22}^{11} + F_{n+24}^{11} = 0$	$F_n^{12} - 121393F_{n+2}^{12} + 1876250208F_{n+4}^{12} - 4153783429236F_{n+6}^{12} + 1338111661846740F_{n+8}^{12} - 62866918803854112F_{n+10}^{12} + 430900339301416726F_{n+12}^{12} - 430900339301416726F_{n+14}^{12} + 62866918803854112F_{n+16}^{12} - 1338111661846740F_{n+18}^{12} + 4153783429236F_{n+20}^{12} - 1876250208F_{n+22}^{12} + 121393F_{n+24}^{12} - F_{n+26}^{12} = 0$
$d = 3$	$F_n^{11} + 7465176F_{n+3}^{11} - 3288949386966F_{n+6}^{11} - 80486395527387960F_{n+9}^{11} + 109784561365961724495F_{n+12}^{11} + 8345066461339202035056F_{n+15}^{11} - 35350269924852517598964F_{n+18}^{11} - 8345066461339202035056F_{n+21}^{11} + 109784561365961724495F_{n+24}^{11} + 80486395527387960F_{n+27}^{11} - 3288949386966F_{n+30}^{11} - 7465176F_{n+33}^{11} + F_{n+36}^{11} = 0$	$F_n^{12} - 31622993F_{n+3}^{12} - 59017802097942F_{n+6}^{12} + 6118024908316477014F_{n+9}^{12} + 35350287810525288435615F_{n+12}^{12} - 11382676772406157547453487F_{n+15}^{12} - 204253853166768077848422324F_{n+18}^{12} + 204253853166768077848422324F_{n+21}^{12} - 11382676772406157547453487F_{n+24}^{12} + 35350287810525288435615F_{n+27}^{12} - 6118024908316477014F_{n+30}^{12} + 59017802097942F_{n+33}^{12} + 31622993F_{n+36}^{12} - F_{n+39}^{12} = 0$
$d = 4$	$F_n^{11} - 1602508992F_{n+4}^{11} + 53524466747610816F_{n+8}^{11} - 38037368586405216140420F_{n+12}^{11} + 575391390221653790894176320F_{n+16}^{11} - 185274241514019282718241289792F_{n+20}^{11} + 1269888543172273599464436304134F_{n+24}^{11} - 185274241514019282718241289792F_{n+28}^{11} + 575391390221653790894176320F_{n+32}^{11} - 38037368586405216140420F_{n+36}^{11} + 53524466747610816F_{n+40}^{11} - 1602508992F_{n+44}^{11} + F_{n+48}^{11} = 0$	$F_n^{12} - 10983760033F_{n+4}^{12} + 2514510602693245248F_{n+8}^{12} - 12247914555209274562902436F_{n+12}^{12} + 1269888537507134711811160218340F_{n+16}^{12} - 2802643439134770696047181018213312F_{n+20}^{12} + 131664583921200466272770851376018406F_{n+24}^{12} - 131664583921200466272770851376018406F_{n+28}^{12} + 2802643439134770696047181018213312F_{n+32}^{12} - 1269888537507134711811160218340F_{n+36}^{12} + 12247914555209274562902436F_{n+40}^{12} - 2514510602693245248F_{n+44}^{12} + 10983760033F_{n+48}^{12} - F_{n+52}^{12} = 0$
$d = 5$	$F_n^{11} + 309601751184F_{n+5}^{11} - 785734695454519488816F_{n+10}^{11} - 16212243047978732685809270040F_{n+15}^{11} + 2719782117954401451250192843131120F_{n+20}^{11} + 3709784802732075988596630165796344144F_{n+25}^{11} - 41142143917049824001389120682695498674F_{n+30}^{11} - 3709784802732075988596630165796344144F_{n+35}^{11} + 2719782117954401451250192843131120F_{n+40}^{11} + 16212243047978732685809270040F_{n+45}^{11} - 785734695454519488816F_{n+50}^{11} - 309601751184F_{n+55}^{11} + F_{n+60}^{11} = 0$	$F_n^{12} - 3433536035513F_{n+5}^{12} - 96638979031653964890672F_{n+10}^{12} + 22113511403245289075636753953464F_{n+15}^{12} + 41142143918499699389483778039324498840F_{n+20}^{12} - 622357208313249323307860104770486616356912F_{n+25}^{12} - 76544876473361070146906000528699601970691034F_{n+30}^{12} + 76544876473361070146906000528699601970691034F_{n+35}^{12} - 622357208313249323307860104770486616356912F_{n+40}^{12} + 41142143918499699389483778039324498840F_{n+45}^{12} - 22113511403245289075636753953464F_{n+50}^{12} + 96638979031653964890672F_{n+55}^{12} + 3433536035513F_{n+60}^{12} - F_{n+65}^{12} = 0$

$P_{k,d}$	$k = 1$	$k = 2$	$k = 3$	$k = 4$
$d = 1$	$1 + x - x^2$	$1 - 2x - 2x^2 + x^3$	$1 + 3x - 6x^2 - 3x^3 + x^4$	$1 - 5x - 15x^2 + 15x^3 + 5x^4 - x^5$
$d = 2$	$1 - 3x^2 + x^4$	$1 - 8x^2 + 8x^4 - x^6$	$1 - 21x^2 + 56x^4 - 21x^6 + x^8$	$1 - 55x^2 + 385x^4 - 385x^6 + 55x^8 - x^{10}$
$d = 3$	$1 + 4x^3 - x^6$	$1 - 17x^3 - 17x^6 + x^9$	$1 + 72x^3 - 306x^6 - 72x^9 + x^{12}$	$1 - 305x^3 - 5490x^6 + 5490x^9 + 305x^{12} - x^{15}$
$d = 4$	$1 - 7x^4 + x^8$	$1 - 48x^4 + 48x^8 - x^{12}$	$1 - 329x^4 + 2256x^8 - 329x^{12} + x^{16}$	$1 - 2255x^4 + 105985x^8 - 105985x^{12} + 2255x^{16} - x^{20}$
$d = 5$	$1 + 11x^5 - x^{10}$	$1 - 122x^5 - 122x^{10} + x^{15}$	$1 + 1353x^5 - 15006x^{10} - 1353x^{15} + x^{20}$	$1 - 15005x^5 - 1845615x^{10} + 1845615x^{15} + 15005x^{20} - x^{25}$
$d = 6$	$1 - 18x^6 + x^{12}$	$1 - 323x^6 + 323x^{12} - x^{18}$	$1 - 5796x^6 + 104006x^{12} - 5796x^{18} + x^{24}$	$1 - 104005x^6 + 33489610x^{12} - 33489610x^{18} + 104005x^{24} - x^{30}$
$d = 7$	$1 + 29x^7 - x^{14}$	$1 - 842x^7 - 842x^{14} + x^{21}$	$1 + 24447x^7 - 709806x^{14} - 24447x^{21} + x^{28}$	$1 - 709805x^7 - 598365615x^{14} + 598365615x^{21} + 709805x^{28} - x^{35}$
$d = 8$	$1 - 47x^8 + x^{16}$	$1 - 2208x^8 + 2208x^{16} - x^{24}$	$1 - 103729x^8 + 4873056x^{16} - 103729x^{24} + x^{32}$	$1 - 4873055x^8 + 10754832385x^{16} - 10754832385x^{24} + 4873055x^{32} - x^{40}$
$d = 9$	$1 + 76x^9 - x^{18}$	$1 - 5777x^9 - 5777x^{18} + x^{27}$	$1 + 439128x^9 - 33379506x^{18} - 439128x^{27} + x^{36}$	$1 - 33379505x^9 - 192866779890x^{18} + 192866779890x^{27} + 33379505x^{36} - x^{45}$
$d = 10$	$1 - 123x^{10} + x^{20}$	$1 - 15128x^{10} + 15128x^{20} - x^{30}$	$1 - 1860621x^{10} + 228841256x^{20} - 1860621x^{30} + x^{40}$	$1 - 228841255x^{10} + 3461681664385x^{20} - 3461681664385x^{30} + 228841255x^{40} - x^{50}$
$d = 11$	$1 + 199x^{11} - x^{22}$	$1 - 39602x^{11} - 39602x^{22} + x^{33}$	$1 + 7880997x^{11} - 1568358006x^{22} - 7880997x^{33} + x^{44}$	$1 - 1568358005x^{11} - 62111682072015x^{22} + 62111682072015x^{33} + 1568358005x^{44} - x^{55}$
$d = 12$	$1 - 322x^{12} + x^{24}$	$1 - 103683x^{12} + 103683x^{24} - x^{36}$	$1 - 33385604x^{12} + 10750060806x^{24} - 33385604x^{36} + x^{48}$	$1 - 10750060805x^{12} + 1114587804384010x^{24} - 1114587804384010x^{36} + 10750060805x^{48} - x^{60}$
$d = 13$	$1 + 521x^{13} - x^{26}$	$1 - 271442x^{13} - 271442x^{26} + x^{39}$	$1 + 141421803x^{13} - 73681030806x^{26} - 141421803x^{39} + x^{52}$	$1 - 73681030805x^{13} - 20000200044801615x^{26} + 20000200044801615x^{39} + 73681030805x^{52} - x^{65}$
$d = 14$	$1 - 843x^{14} + x^{28}$	$1 - 710648x^{14} + 710648x^{28} - x^{42}$	$1 - 599075421x^{14} + 505019869256x^{28} - 599075421x^{42} + x^{56}$	$1 - 505019869255x^{14} + 358890855026457985x^{28} - 358890855026457985x^{42} + 505019869255x^{56} - x^{70}$
$d = 15$	$1 + 1364x^{15} - x^{30}$	$1 - 1860497x^{15} - 1860497x^{30} + x^{45}$	$1 + 2537719272x^{15} - 3461450947506x^{30} - 2537719272x^{45} + x^{60}$	$1 - 3461450947505x^{15} - 6440022564931157490x^{30} + 6440022564931157490x^{45} + 3461450947505x^{60} - x^{75}$
$d = 16$	$1 - 2207x^{16} + x^{32}$	$1 - 4870848x^{16} + 4870848x^{32} - x^{48}$	$1 - 10749959329x^{16} + 23725155368256x^{32} - 10749959329x^{48} + x^{64}$	$1 - 23725155368255x^{16} + 115561601849998761985x^{32} - 115561601849998761985x^{48} + 23725155368255x^{64} - x^{80}$
$d = 17$	$1 + 3571x^{17} - x^{34}$	$1 - 12752042x^{17} - 12752042x^{34} + x^{51}$	$1 + 45537545553x^{17} - 162614587921806x^{34} - 45537545553x^{51} + x^{68}$	$1 - 162614587921805x^{17} - 2073668217606137997615x^{34} + 2073668217606137997615x^{51} + 162614587921805x^{68} - x^{85}$

$P_{k,d}$	$k = 5$	$k = 6$
$d = 1$	$1 + 8x - 40x^2 - 60x^3 + 40x^4 + 8x^5 - x^6$	$1 - 13x - 104x^2 + 260x^3 + 260x^4 - 104x^5 - 13x^6 + x^7$
$d = 2$	$1 - 144x^2 + 2640x^4 - 6930x^6 + 2640x^8 - 144x^{10} + x^{12}$	$1 - 377x^2 + 18096x^4 - 124410x^6 + 124410x^8 - 18096x^{10} + 377x^{12} - x^{14}$
$d = 3$	$1 + 1292x^3 - 98515x^6 - 417240x^9 + 98515x^{12} + 1292x^{15} - x^{18}$	$1 - 5473x^3 - 1767779x^6 + 31716035x^9 + 31716035x^{12} - 1767779x^{15} - 5473x^{18} + x^{21}$
$d = 4$	$1 - 15456x^4 + 4979040x^8 - 34127170x^{12} + 4979040x^{16} - 15456x^{20} + x^{24}$	$1 - 105937x^4 + 233908896x^8 - 10988845010x^{12} + 10988845010x^{16} - 233908896x^{20} + 105937x^{24} - x^{28}$
$d = 5$	$1 + 166408x^5 - 226995640x^{10} - 2517418860x^{15} + 226995640x^{20} + 166408x^{25} - x^{30}$	$1 - 1845493x^5 - 27918618104x^{10} + 3433761185660x^{15} + 3433761185660x^{20} - 27918618104x^{25} - 1845493x^{30} + x^{35}$
$d = 6$	$1 - 1866294x^6 + 10783550415x^{12} - 193502966580x^{18} + 10783550415x^{24} - 1866294x^{30} + x^{36}$	$1 - 33489287x^6 + 3472269744021x^{12} - 1118060107513635x^{18} + 1118060107513635x^{24} - 3472269744021x^{30} + 33489287x^{36} - x^{42}$
$d = 7$	$1 + 20608792x^7 - 504421503640x^{14} - 14645596792740x^{21} + 504421503640x^{28} + 20608792x^{35} - x^{42}$	$1 - 598364773x^7 - 425226729202904x^{14} + 358465627698179660x^{21} + 358465627698179660x^{28} - 425226729202904x^{35} - 598364773x^{42} + x^{49}$
$d = 8$	$1 - 228929856x^8 + 23735910200640x^{16} - 1115082531341570x^{24} + 23735910200640x^{32} - 228929856x^{40} + x^{48}$	$1 - 10754830177x^8 + 52385143057980096x^{16} - 115613987003806701410x^{24} + 115613987003806701410x^{32} - 52385143057980096x^{40} + 10754830177x^{48} - x^{56}$
$d = 9$	$1 + 2537281508x^9 - 1114384220824915x^{18} - 84707861194807560x^{27} + 1114384220824915x^{36} + 2537281508x^{45} - x^{54}$	$1 - 192866774113x^9 - 6438911835059578979x^{18} + 37204031468397159741635x^{27} + 37204031468397159741635x^{36} - 6438911835059578979x^{45} - 192866774113x^{54} + x^{63}$
$d = 10$	$1 - 28145613744x^{10} + 52364858308310640x^{20} - 6440451813224963730x^{30} + 52364858308310640x^{40} - 28145613744x^{50} + x^{60}$	$1 - 3461681649257x^{10} + 792123208168133386896x^{20} - 11982447717597957116914410x^{30} + 11982447717597957116914410x^{40} - 792123208168133386896x^{50} + 3461681649257x^{60} - x^{70}$
$d = 11$	$1 + 312111123992x^{11} - 2459808943529652040x^{22} - 489514340299236329940x^{33} + 2459808943529652040x^{44} + 312111123992x^{55} - x^{66}$	$1 - 62111682032413x^{11} - 97415813528493127668104x^{22} + 3857958460709042279828238260x^{33} + 3857958460709042279828238260x^{44} - 97415813528493127668104x^{55} - 62111682032413x^{66} + x^{77}$
$d = 12$	$1 - 3461486193606x^{12} + 115562692723392864015x^{24} - 37210828163121010140820x^{36} + 115562692723392864015x^{48} - 3461486193606x^{60} + x^{72}$	$1 - 1114587804280327x^{12} + 11981771105832231122419221x^{24} - 1242293991679335809099081088035x^{36} + 1242293991679335809099081088035x^{48} - 11981771105832231122419221x^{60} + 1114587804280327x^{72} - x^{84}$
$d = 13$	$1 + 38387958471208x^{13} - 5428914300687403749640x^{26} - 2828474770800748512253260x^{39} + 5428914300687403749640x^{52} + 38387958471208x^{65} - x^{78}$	$1 - 20000200044530173x^{13} - 1473640784501490735968728904x^{26} + 400009475462009215542672231608660x^{39} + 400009475462009215542672231608660x^{52} - 1473640784501490735968728904x^{65} - 20000200044530173x^{78} + x^{91}$
$d = 14$	$1 - 425731150706544x^{14} + 255044709451482267797040x^{28} - 215002387523034496198605330x^{42} + 255044709451482267797040x^{56} - 425731150706544x^{70} + x^{84}$	$1 - 358890855025747337x^{14} + 181246757637208628308136626896x^{28} - 128802464574354355730731742251712010x^{42} + 128802464574354355730731742251712010x^{56} - 181246757637208628308136626896x^{70} + 358890855025747337x^{84} - x^{98}$
$d = 15$	$1 + 4721421630116092x^{15} - 11981649102005827196882515x^{30} - 16342978159331448281738963640x^{45} + 11981649102005827196882515x^{60} + 4721421630116092x^{75} - x^{90}$	$1 - 6440022564929296993x^{15} - 22291834190977197465580594234979x^{30} + 41473912928632712274775736020863780035x^{45} + 41473912928632712274775736020863780035x^{60} - 22291834190977197465580594234979x^{75} - 6440022564929296993x^{90} + x^{105}$

$P_{k,d}$	$k = 7$	$k = 8$
$d = 1$	$1 + 21x - 273x^2 - 1092x^3 + 1820x^4 + 1092x^5 - 273x^6 - 21x^7 + x^8$	$1 - 34x - 714x^2 + 4641x^3 + 12376x^4 - 12376x^5 - 4641x^6 + 714x^7 + 34x^8 - x^9$
$d = 2$	$1 - 987x^2 + 124033x^4 - 2232594x^6 + 5847270x^8 - 2232594x^{10} + 124033x^{12} - 987x^{14} + x^{16}$	$1 - 2584x^2 + 850136x^4 - 40062659x^6 + 274715376x^8 - 274715376x^{10} + 40062659x^{12} - 850136x^{14} + 2584x^{16} - x^{18}$
$d = 3$	$1 + 23184x^3 - 31721508x^6 - 2410834608x^9 + 10212563270x^{12} + 2410834608x^{15} - 31721508x^{18} - 23184x^{21} + x^{24}$	$1 - 98209x^3 - 569219364x^6 + 183255151716x^9 + 3288411889126x^{12} - 3288411889126x^{15} - 183255151716x^{18} + 569219364x^{21} + 98209x^{24} - x^{27}$
$d = 4$	$1 - 726103x^4 + 10988739073x^8 - 3538373981506x^{12} + 24252380937070x^{16} - 3538373981506x^{20} + 10988739073x^{24} - 726103x^{28} + x^{32}$	$1 - 4976784x^4 + 516236827536x^8 - 1139345433305859x^{12} + 53524993973177376x^{16} - 53524993973177376x^{20} + 1139345433305859x^{24} - 516236827536x^{28} + 4976784x^{32} - x^{36}$
$d = 5$	$1 + 20466831x^5 - 3433763031153x^{10} - 4683652774492692x^{15} + 51942505455478820x^{20} + 4683652774492692x^{25} - 3433763031153x^{30} - 20466831x^{35} + x^{40}$	$1 - 226980634x^5 - 422324934213714x^{10} + 6388505818171063041x^{15} + 785734276563348306376x^{20} - 785734276563348306376x^{25} - 6388505818171063041x^{30} + 422324934213714x^{35} + 226980634x^{40} - x^{45}$
$d = 6$	$1 - 600940872x^6 + 1118060074024348x^{12} - 6460151107712682744x^{18} + 115922708067228704070x^{24} - 6460151107712682744x^{30} + 1118060074024348x^{36} - 600940872x^{42} + x^{48}$	$1 - 10783446409x^6 + 360011871566096036x^{12} - 37326751982303806870484x^{18} + 12019098216711818657616126x^{24} - 12019098216711818657616126x^{30} + 37326751982303806870484x^{36} - 360011871566096036x^{42} + 10783446409x^{48} - x^{54}$
$d = 7$	$1 + 17373187209x^7 - 358465628296544433x^{14} - 8773804718186221542108x^{21} + 254742522926828280840020x^{28} + 8773804718186221542108x^{35} - 358465628296544433x^{42} - 17373187209x^{49} + x^{56}$	$1 - 504420793834x^7 - 302186099427257754114x^{14} + 214747644640791586761179841x^{21} + 181032009690022846439690310376x^{28} - 181032009690022846439690310376x^{35} - 214747644640791586761179841x^{42} + 302186099427257754114x^{49} + 504420793834x^{56} - x^{63}$
$d = 8$	$1 - 505248088463x^8 + 115613986993051871233x^{16} - 11987089399413604113179906x^{24} + 563138041755530860142794270x^{32} - 11987089399413604113179906x^{40} + 115613986993051871233x^{48} - 505248088463x^{56} + x^{64}$	$1 - 23735905327584x^8 + 255160016908522421831136x^{16} - 1242845402994387314669667142659x^{24} + 2742959241270686661932088292925376x^{32} - 2742959241270686661932088292925376x^{40} - 1242845402994387314669667142659x^{48} - 255160016908522421831136x^{56} + 23735905327584x^{64} - x^{72}$
$d = 9$	$1 + 14660412114096x^9 - 37204031468590026515748x^{18} - 16340159437130614005822584592x^{27} + 1242067082109313265973531616070x^{36} + 16340159437130614005822584592x^{45} - 37204031468590026515748x^{54} - 14660412114096x^{63} + x^{72}$	$1 - 1114384187445409x^9 - 214964887386601338148412964x^{18} + 7176663385462718225281892469660516x^{27} + 41466759799136541000396977306193361126x^{36} - 41466759799136541000396977306193361126x^{45} - 7176663385462718225281892469660516x^{54} + 214964887386601338148412964x^{63} + 1114384187445409x^{72} - x^{81}$
$d = 10$	$1 - 425758697244867x^{10} + 11982447717594495435265153x^{20} - 22293320013689123568319946626194x^{30} + 2741897103197930270175610630790070x^{40} - 22293320013689123568319946626194x^{50} + 11982447717594495435265153x^{60} - 425758697244867x^{70} + x^{80}$	$1 - 52364858079469384x^{10} + 181258485831928724281122582536x^{20} - 41476677298816604572894529562705419459x^{30} - 627417694757301686158692996113929684631376x^{40} - 627417694757301686158692996113929684631376x^{50} - 41476677298816604572894529562705419459x^{60} - 181258485831928724281122582536x^{70} + 52364858079469384x^{80} - x^{90}$



$P_{k,d}$	$k = 9$	$k = 10$
$d = 1$	$1 + 55x - 1870x^2 - 19635x^3 + 85085x^4 + 136136x^5 - 85085x^6 - 19635x^7 + 1870x^8 + 55x^9 - x^{10}$	$1 - 89x - 4895x^2 + 83215x^3 + 582505x^4 - 1514513x^5 - 1514513x^6 + 582505x^7 + 83215x^8 - 4895x^9 - 89x^{10} + x^{11}$
$d = 2$	$1 - 6765x^2 + 5826920x^4 - 718896255x^6 + 12905899435x^8 - 33789991248x^{10} + 12905899435x^{12} - 718896255x^{14} + 5826920x^{16} - 6765x^{18} + x^{20}$	$1 - 17711x^2 + 39938305x^4 - 12900072515x^6 + 606303408205x^8 - 4155934270787x^{10} + 4155934270787x^{12} - 606303408205x^{14} + 12900072515x^{16} - 39938305x^{18} + 17711x^{20} - x^{22}$
$d = 3$	$1 + 416020x^3 - 10214227045x^6 - 13929802341840x^9 + 1058858447456810x^{12} + 4485393816767864x^{15} - 1058858447456810x^{18} - 13929802341840x^{21} + 10214227045x^{24} + 416020x^{27} - x^{30}$	$1 - 1762289x^3 - 183286867445x^6 + 1058848233229765x^9 + 340949131099984330x^{12} - 6118080637738407338x^{15} - 6118080637738407338x^{18} + 340949131099984330x^{21} + 1058848233229765x^{24} - 183286867445x^{27} - 1762289x^{30} + x^{33}$
$d = 4$	$1 - 34111385x^4 + 24252142155120x^8 - 366865691151231195x^{12} + 118129637457410270835x^{16} - 809672583832254166752x^{20} + 118129637457410270835x^{24} - 366865691151231195x^{28} + 24252142155120x^{32} - 34111385x^{36} + x^{40}$	$1 - 233802911x^4 + 1139334444463105x^8 - 118129613205268115715x^{12} + 260712056344026731383005x^{16} - 12247917123244860240585987x^{20} + 12247917123244860240585987x^{24} - 260712056344026731383005x^{28} + 118129613205268115715x^{32} - 1139334444463105x^{36} + 233802911x^{40} - x^{44}$
$d = 5$	$1 + 2517253805x^5 - 51942533145255670x^{10} - 8713926619638084013785x^{15} + 11885802349634698138102085x^{20} + 131815567970543875225944136x^{25} - 11885802349634698138102085x^{30} - 8713926619638084013785x^{35} + 51942533145255670x^{40} + 2517253805x^{45} - x^{50}$	$1 - 27916772489x^5 - 6388509251932233695x^{10} + 11885802297692164992846415x^{15} + 179796531357189379846787719705x^{20} - 22113511499098533834161133568913x^{25} - 22113511499098533834161133568913x^{30} + 179796531357189379846787719705x^{35} + 11885802297692164992846415x^{40} - 6388509251932233695x^{45} - 27916772489x^{50} + x^{55}$
$d = 6$	$1 - 193501094490x^6 + 115922704584208899245x^{12} - 215673966493600288985914680x^{18} + 1246164141189193192051800496210x^{24} - 22361508193995905188857487190748x^{30} + 1246164141189193192051800496210x^{36} - 215673966493600288985914680x^{42} + 115922704584208899245x^{48} - 193501094490x^{54} + x^{60}$	$1 - 3472236254411x^6 + 37326750864243699460855x^{12} - 1246164141073270487467591596965x^{18} + 129204790474758830681614831956525130x^{24} - 41603541271901011840594247688561526862x^{30} + 41603541271901011840594247688561526862x^{36} - 129204790474758830681614831956525130x^{42} + 1246164141073270487467591596965x^{48} - 37326750864243699460855x^{54} + 3472236254411x^{60} - x^{66}$
$d = 7$	$1 + 14645576208395x^7 - 254742523351549990173670x^{14} - 5256163359001819595735486143215x^{21} + 128649854589930923589365400013477685x^{28} + 3735276722584557306050429259972187864x^{35} - 128649854589930923589365400013477685x^{42} + 5256163359001819595735486143215x^{49} + 254742523351549990173670x^{56} + 14645576208395x^{63} - x^{70}$	$1 - 425226130837289x^7 - 214747644999257214458649695x^{14} + 128649854589676181066013850023304015x^{21} + 91424633214589609046019544477510928347705x^{28} - 77070857348224049851691987637237312002301713x^{35} - 77070857348224049851691987637237312002301713x^{42} + 91424633214589609046019544477510928347705x^{49} + 128649854589676181066013850023304015x^{56} - 214747644999257214458649695x^{63} - 425226130837289x^{70} + x^{77}$

$P_{k,d}$	$k = 11$	$k = 12$
$d = 1$	$1 + 144x - 12816x^2 - 352440x^3 + 3994320x^4 + 16776144x^5 - 27261234x^6 - 16776144x^7 + 3994320x^8 + 352440x^9 - 12816x^{10} - 144x^{11} + x^{12}$	$1 - 233x - 33552x^2 + 1493064x^3 + 27372840x^4 - 186135312x^5 - 488605194x^6 + 488605194x^7 + 186135312x^8 - 27372840x^9 - 1493064x^{10} + 33552x^{11} + 233x^{12} - x^{13}$
$d = 2$	$1 - 46368x^2 + 273741216x^4 - 231482415780x^6 + 28483360113120x^8 - 511146844211808x^{10} + 1338210835193414x^{12} - 511146844211808x^{14} + 28483360113120x^{16} - 231482415780x^{18} + 273741216x^{20} - 46368x^{22} + x^{24}$	$1 - 121393x^2 + 1876250208x^4 - 4153783429236x^6 + 1338111661846740x^8 - 62866918803854112x^{10} + 430900339301416726x^{12} - 430900339301416726x^{14} + 62866918803854112x^{16} - 1338111661846740x^{18} + 4153783429236x^{20} - 1876250208x^{22} + 121393x^{24} - x^{26}$
$d = 3$	$1 + 7465176x^3 - 3288949386966x^6 - 80486395527387960x^9 + 109784561365961724495x^{12} + 8345066461339202035056x^{15} - 35350269924852517598964x^{18} - 8345066461339202035056x^{21} + 109784561365961724495x^{24} + 80486395527387960x^{27} - 3288949386966x^{30} - 7465176x^{33} + x^{36}$	$1 - 31622993x^3 - 59017802097942x^6 + 6118024908316477014x^9 + 35350287810525288435615x^{12} - 11382676772406157547453487x^{15} - 204253853166768077848422324x^{18} + 204253853166768077848422324x^{21} + 11382676772406157547453487x^{24} - 35350287810525288435615x^{27} - 6118024908316477014x^{30} + 59017802097942x^{33} + 31622993x^{36} - x^{39}$
$d = 4$	$1 - 1602508992x^4 + 53524466747610816x^8 - 38037368586405216140420x^{12} + 575391390221653790894176320x^{16} - 185274241514019282718241289792x^{20} + 1269888543172273599464436304134x^{24} - 185274241514019282718241289792x^{28} + 575391390221653790894176320x^{32} - 38037368586405216140420x^{36} + 53524466747610816x^{40} - 1602508992x^{44} + x^{48}$	$1 - 10983760033x^4 + 2514510602693245248x^8 - 12247914555209274562902436x^{12} + 1269888537507134711811160218340x^{16} - 2802643439134770696047181018213312x^{20} + 131664583921200466272770851376018406x^{24} - 131664583921200466272770851376018406x^{28} + 2802643439134770696047181018213312x^{32} - 1269888537507134711811160218340x^{36} + 12247914555209274562902436x^{40} - 2514510602693245248x^{44} + 10983760033x^{48} - x^{52}$
$d = 5$	$1 + 309601751184x^5 - 785734695454519488816x^{10} - 16212243047978732685809270040x^{15} + 2719782117954401451250192843131120x^{20} + 3709784802732075988596630165796344144x^{25} - 41142143917049824001389120682695498674x^{30} + 3709784802732075988596630165796344144x^{35} + 2719782117954401451250192843131120x^{40} + 16212243047978732685809270040x^{45} - 785734695454519488816x^{50} - 309601751184x^{55} + x^{60}$	$1 - 3433536035513x^5 - 96638979031653964890672x^{10} + 22113511403245289075636753953464x^{15} + 41142143918499699389483778039324498840x^{20} - 622357208313249323307860104770486616356912x^{25} - 76544876473361070146906000528699601970691034x^{30} + 76544876473361070146906000528699601970691034x^{35} + 622357208313249323307860104770486616356912x^{40} - 41142143918499699389483778039324498840x^{45} - 22113511403245289075636753953464x^{50} + 96638979031653964890672x^{55} + 3433536035513x^{60} - x^{65}$
$d = 6$	$1 - 62306751484908x^6 + 12019097855581887017496066x^{12} - 7200336191447390382987648762443580x^{18} + 13396211084757780941657918519448846931695x^{24} - 77403305329266927434881887224484775102421208x^{30} + 1388945957561053956383578006660474748638445084x^{36} - 77403305329266927434881887224484775102421208x^{42} + 13396211084757780941657918519448846931695x^{48} - 7200336191447390382987648762443580x^{54} + 12019097855581887017496066x^{60} - 62306751484908x^{66} + x^{72}$	$1 - 1118049290473933x^6 + 3870112182746503375934272398x^{12} - 41603541268018880559632150554043662686x^{18} + 1388945957560651453118254804002744759314936715x^{24} - 144008694758448856418717144546612151348283482711687x^{30} + 46370352475935777076744970495104817824540748565851956x^{36} - 46370352475935777076744970495104817824540748565851956x^{42} + 144008694758448856418717144546612151348283482711687x^{48} - 1388945957560651453118254804002744759314936715x^{54} + 41603541268018880559632150554043662686x^{60} - 3870112182746503375934272398x^{66} + 1118049290473933x^{72} - x^{78}$

$Q_{k,d}$	$k = 1$	$k = 2$	$k = 3$	$k = 4$
$d = 1$	$1 + x - x^2$	$1 - 2x^2 - 2x^4 + x^6$	$1 + 3x^3 - 6x^6 - 3x^9 + x^{12}$	$1 - 5x^4 - 15x^8 + 15x^{12} + 5x^{16} - x^{20}$
$d = 2$	$1 - 3x^2 + x^4$	$1 - 8x^4 + 8x^8 - x^{12}$	$1 - 21x^6 + 56x^{12} - 21x^{18} + x^{24}$	$1 - 55x^8 + 385x^{16} - 385x^{24} + 55x^{32} - x^{40}$
$d = 3$	$1 + 4x^3 - x^6$	$1 - 17x^6 - 17x^{12} + x^{18}$	$1 + 72x^9 - 306x^{18} - 72x^{27} + x^{36}$	$1 - 305x^{12} - 5490x^{24} + 5490x^{36} + 305x^{48} - x^{60}$
$d = 4$	$1 - 7x^4 + x^8$	$1 - 48x^8 + 48x^{16} - x^{24}$	$1 - 329x^{12} + 2256x^{24} - 329x^{36} + x^{48}$	$1 - 2255x^{16} + 105985x^{32} - 105985x^{48} + 2255x^{64} - x^{80}$
$d = 5$	$1 + 11x^5 - x^{10}$	$1 - 122x^{10} - 122x^{20} + x^{30}$	$1 + 1353x^{15} - 15006x^{30} - 1353x^{45} + x^{60}$	$1 - 15005x^{20} - 1845615x^{40} + 1845615x^{60} + 15005x^{80} - x^{100}$
$d = 6$	$1 - 18x^6 + x^{12}$	$1 - 323x^{12} + 323x^{24} - x^{36}$	$1 - 5796x^{18} + 104006x^{36} - 5796x^{54} + x^{72}$	$1 - 104005x^{24} + 33489610x^{48} - 33489610x^{72} + 104005x^{96} - x^{120}$
$d = 7$	$1 + 29x^7 - x^{14}$	$1 - 842x^{14} - 842x^{28} + x^{42}$	$1 + 24447x^{21} - 709806x^{42} - 24447x^{63} + x^{84}$	$1 - 709805x^{28} - 598365615x^{56} + 598365615x^{84} + 709805x^{112} - x^{140}$
$d = 8$	$1 - 47x^8 + x^{16}$	$1 - 2208x^{16} + 2208x^{32} - x^{48}$	$1 - 103729x^{24} + 4873056x^{48} - 103729x^{72} + x^{96}$	$1 - 4873055x^{32} + 10754832385x^{64} - 10754832385x^{96} + 4873055x^{128} - x^{160}$
$d = 9$	$1 + 76x^9 - x^{18}$	$1 - 5777x^{18} - 5777x^{36} + x^{54}$	$1 + 439128x^{27} - 33379506x^{54} - 439128x^{81} + x^{108}$	$1 - 33379505x^{36} - 192866779890x^{72} + 192866779890x^{108} + 33379505x^{144} - x^{180}$
$d = 10$	$1 - 123x^{10} + x^{20}$	$1 - 15128x^{20} + 15128x^{40} - x^{60}$	$1 - 1860621x^{30} + 228841256x^{60} - 1860621x^{90} + x^{120}$	$1 - 228841255x^{40} + 3461681664385x^{80} - 3461681664385x^{120} + 228841255x^{160} - x^{200}$
$d = 11$	$1 + 199x^{11} - x^{22}$	$1 - 39602x^{22} - 39602x^{44} + x^{66}$	$1 + 7880997x^{33} - 1568358006x^{66} - 7880997x^{99} + x^{132}$	$1 - 1568358005x^{44} - 62111682072015x^{88} + 62111682072015x^{132} + 1568358005x^{176} - x^{220}$
$d = 12$	$1 - 322x^{12} + x^{24}$	$1 - 103683x^{24} + 103683x^{48} - x^{72}$	$1 - 33385604x^{36} + 10750060806x^{72} - 33385604x^{108} + x^{144}$	$1 - 10750060805x^{48} + 1114587804384010x^{96} - 1114587804384010x^{144} + 10750060805x^{192} - x^{240}$
$d = 13$	$1 + 521x^{13} - x^{26}$	$1 - 271442x^{26} - 271442x^{52} + x^{78}$	$1 + 141421803x^{39} - 73681030806x^{78} - 141421803x^{117} + x^{156}$	$1 - 73681030805x^{52} - 20000200044801615x^{104} + 20000200044801615x^{156} + 73681030805x^{208} - x^{260}$
$d = 14$	$1 - 843x^{14} + x^{28}$	$1 - 710648x^{28} + 710648x^{56} - x^{84}$	$1 - 599075421x^{42} + 505019869256x^{84} - 599075421x^{126} + x^{168}$	$1 - 505019869255x^{56} + 358890855026457985x^{112} - 358890855026457985x^{168} + 505019869255x^{224} - x^{280}$
$d = 15$	$1 + 1364x^{15} - x^{30}$	$1 - 1860497x^{30} - 1860497x^{60} + x^{90}$	$1 + 2537719272x^{45} - 3461450947506x^{90} - 2537719272x^{135} + x^{180}$	$1 - 3461450947505x^{60} - 6440022564931157490x^{120} + 6440022564931157490x^{180} + 3461450947505x^{240} - x^{300}$
$d = 16$	$1 - 2207x^{16} + x^{32}$	$1 - 4870848x^{32} + 4870848x^{64} - x^{96}$	$1 - 10749959329x^{48} + 23725155368256x^{96} - 10749959329x^{144} + x^{192}$	$1 - 23725155368255x^{64} + 115561601849998761985x^{128} - 115561601849998761985x^{192} + 23725155368255x^{256} - x^{320}$

$Q_{k,d}$	$k = 5$	$k = 6$
$d = 1$	$1 + 8x^5 - 40x^{10} - 60x^{15} + 40x^{20} + 8x^{25} - x^{30}$	$1 - 13x^6 - 104x^{12} + 260x^{18} + 260x^{24} - 104x^{30} - 13x^{36} + x^{42}$
$d = 2$	$1 - 144x^{10} + 2640x^{20} - 6930x^{30} + 2640x^{40} - 144x^{50} + x^{60}$	$1 - 377x^{12} + 18096x^{24} - 124410x^{36} + 124410x^{48} - 18096x^{60} + 377x^{72} - x^{84}$
$d = 3$	$1 + 1292x^{15} - 98515x^{30} - 417240x^{45} + 98515x^{60} + 1292x^{75} - x^{90}$	$1 - 5473x^{18} - 1767779x^{36} + 31716035x^{54} + 31716035x^{72} - 1767779x^{90} - 5473x^{108} + x^{126}$
$d = 4$	$1 - 15456x^{20} + 4979040x^{40} - 34127170x^{60} + 4979040x^{80} - 15456x^{100} + x^{120}$	$1 - 105937x^{24} + 233908896x^{48} - 10988845010x^{72} + 10988845010x^{96} - 233908896x^{120} + 105937x^{144} - x^{168}$
$d = 5$	$1 + 166408x^{25} - 226995640x^{50} - 2517418860x^{75} + 226995640x^{100} + 166408x^{125} - x^{150}$	$1 - 1845493x^{30} - 27918618104x^{60} + 3433761185660x^{90} + 3433761185660x^{120} - 27918618104x^{150} - 1845493x^{180} + x^{210}$
$d = 6$	$1 - 1866294x^{30} + 10783550415x^{60} - 193502966580x^{90} + 10783550415x^{120} - 1866294x^{150} + x^{180}$	$1 - 33489287x^{36} + 3472269744021x^{72} - 1118060107513635x^{108} + 1118060107513635x^{144} - 3472269744021x^{180} + 33489287x^{216} - x^{252}$
$d = 7$	$1 + 20608792x^{35} - 504421503640x^{70} - 14645596792740x^{105} + 504421503640x^{140} + 20608792x^{175} - x^{210}$	$1 - 598364773x^{42} - 425226729202904x^{84} + 358465627698179660x^{126} + 358465627698179660x^{168} - 425226729202904x^{210} - 598364773x^{252} + x^{294}$
$d = 8$	$1 - 228929856x^{40} + 23735910200640x^{80} - 1115082531341570x^{120} + 23735910200640x^{160} - 228929856x^{200} + x^{240}$	$1 - 10754830177x^{48} + 52385143057980096x^{96} - 115613987003806701410x^{144} + 115613987003806701410x^{192} - 52385143057980096x^{240} + 10754830177x^{288} - x^{336}$
$d = 9$	$1 + 2537281508x^{45} - 1114384220824915x^{90} - 84707861194807560x^{135} + 1114384220824915x^{180} + 2537281508x^{225} - x^{270}$	$1 - 192866774113x^{54} - 6438911835059578979x^{108} + 37204031468397159741635x^{162} + 37204031468397159741635x^{216} - 6438911835059578979x^{270} - 192866774113x^{324} + x^{378}$
$d = 10$	$1 - 28145613744x^{50} + 52364858308310640x^{100} - 6440451813224963730x^{150} + 52364858308310640x^{200} - 28145613744x^{250} + x^{300}$	$1 - 3461681649257x^{60} + 792123208168133386896x^{120} - 11982447717597957116914410x^{180} + 11982447717597957116914410x^{240} - 792123208168133386896x^{300} + 3461681649257x^{360} - x^{420}$
$d = 11$	$1 + 312111123992x^{55} - 2459808943529652040x^{110} - 489514340299236329940x^{165} + 2459808943529652040x^{220} + 312111123992x^{275} - x^{330}$	$1 - 62111682032413x^{66} - 97415813528493127668104x^{132} + 3857958460709042279828238260x^{198} + 3857958460709042279828238260x^{264} - 97415813528493127668104x^{330} - 62111682032413x^{396} + x^{462}$
$d = 12$	$1 - 3461486193606x^{60} + 115562692723392864015x^{120} - 37210828163121010140820x^{180} + 115562692723392864015x^{240} - 3461486193606x^{300} + x^{360}$	$1 - 1114587804280327x^{72} + 11981771105832231122419221x^{144} - 1242293991679335809099081088035x^{216} + 1242293991679335809099081088035x^{288} - 11981771105832231122419221x^{360} + 1114587804280327x^{432} - x^{504}$
$d = 13$	$1 + 38387958471208x^{65} - 5428914300687403749640x^{130} - 2828474770800748512253260x^{195} + 5428914300687403749640x^{260} + 38387958471208x^{325} - x^{390}$	$1 - 20000200044530173x^{78} - 1473640784501490735968728904x^{156} + 400009475462009215542672231608660x^{234} + 400009475462009215542672231608660x^{312} - 1473640784501490735968728904x^{390} - 20000200044530173x^{468} + x^{546}$
$d = 14$	$1 - 425731150706544x^{70} + 255044709451482267797040x^{140} - 215002387523034496198605330x^{210} + 255044709451482267797040x^{280} - 425731150706544x^{350} + x^{420}$	$1 - 358890855025747337x^{84} + 181246757637208628308136626896x^{168} - 128802464574354355730731742251712010x^{252} + 128802464574354355730731742251712010x^{336} - 181246757637208628308136626896x^{420} + 358890855025747337x^{504} - x^{588}$

$Q_{k,d}$	$k = 7$	$k = 8$
$d = 1$	$1 + 21x^7 - 273x^{14} - 1092x^{21} + 1820x^{28} + 1092x^{35} - 273x^{42} - 21x^{49} + x^{56}$	$1 - 34x^8 - 714x^{16} + 4641x^{24} + 12376x^{32} - 12376x^{40} - 4641x^{48} + 714x^{56} + 34x^{64} - x^{72}$
$d = 2$	$1 - 987x^{14} + 124033x^{28} - 2232594x^{42} + 5847270x^{56} - 2232594x^{70} + 124033x^{84} - 987x^{98} + x^{112}$	$1 - 2584x^{16} + 850136x^{32} - 40062659x^{48} + 274715376x^{64} - 274715376x^{80} + 40062659x^{96} - 850136x^{112} + 2584x^{128} - x^{144}$
$d = 3$	$1 + 23184x^{21} - 31721508x^{42} - 2410834608x^{63} + 10212563270x^{84} + 2410834608x^{105} - 31721508x^{126} - 23184x^{147} + x^{168}$	$1 - 98209x^{24} - 569219364x^{48} + 183255151716x^{72} + 3288411889126x^{96} - 3288411889126x^{120} - 183255151716x^{144} + 569219364x^{168} + 98209x^{192} - x^{216}$
$d = 4$	$1 - 726103x^{28} + 10988739073x^{56} - 3538373981506x^{84} + 24252380937070x^{112} - 3538373981506x^{140} + 10988739073x^{168} - 726103x^{196} + x^{224}$	$1 - 4976784x^{32} + 516236827536x^{64} - 1139345433305859x^{96} + 53524993973177376x^{128} - 53524993973177376x^{160} + 1139345433305859x^{192} - 516236827536x^{224} + 4976784x^{256} - x^{288}$
$d = 5$	$1 + 20466831x^{35} - 3433763031153x^{70} - 4683652774492692x^{105} + 51942505455478820x^{140} + 4683652774492692x^{175} - 3433763031153x^{210} - 20466831x^{245} + x^{280}$	$1 - 226980634x^{40} - 422324934213714x^{80} + 6388505818171063041x^{120} + 785734276563348306376x^{160} - 785734276563348306376x^{200} - 6388505818171063041x^{240} + 422324934213714x^{280} + 226980634x^{320} - x^{360}$
$d = 6$	$1 - 600940872x^{42} + 1118060074024348x^{84} - 6460151107712682744x^{126} + 115922708067228704070x^{168} - 6460151107712682744x^{210} + 1118060074024348x^{252} - 600940872x^{294} + x^{336}$	$1 - 10783446409x^{48} + 360011871566096036x^{96} - 37326751982303806870484x^{144} + 12019098216711818657616126x^{192} - 12019098216711818657616126x^{240} + 37326751982303806870484x^{288} - 360011871566096036x^{336} + 10783446409x^{384} - x^{432}$
$d = 7$	$1 + 17373187209x^{49} - 358465628296544433x^{98} - 8773804718186221542108x^{147} + 254742522926828280840020x^{196} + 8773804718186221542108x^{245} - 358465628296544433x^{294} - 17373187209x^{343} + x^{392}$	$1 - 504420793834x^{56} - 302186099427257754114x^{112} + 214747644640791586761179841x^{168} + 181032009690022846439690310376x^{224} - 181032009690022846439690310376x^{280} - 214747644640791586761179841x^{336} + 302186099427257754114x^{392} + 504420793834x^{448} - x^{504}$
$d = 8$	$1 - 505248088463x^{56} + 115613986993051871233x^{112} - 11987089399413604113179906x^{168} + 563138041755530860142794270x^{224} - 11987089399413604113179906x^{280} + 115613986993051871233x^{336} - 505248088463x^{392} + x^{448}$	$1 - 23735905327584x^{64} + 255160016908522421831136x^{128} - 4242845402994387314669667142659x^{192} + 2742959241270686661932088292925376x^{256} - 2742959241270686661932088292925376x^{320} + 1242845402994387314669667142659x^{384} - 255160016908522421831136x^{448} + 23735905327584x^{512} - x^{576}$
$d = 9$	$1 + 14660412114096x^{63} - 37204031468590026515748x^{126} - 16340159437130614005822584592x^{189} + 1242067082109313265973531616070x^{252} + 16340159437130614005822584592x^{315} - 37204031468590026515748x^{378} - 14660412114096x^{441} + x^{504}$	$1 - 1114384187445409x^{72} - 214964887386601338148412964x^{144} + 7176663385462718225281892469660516x^{216} + 41466759799136541000396977306193361126x^{288} - 41466759799136541000396977306193361126x^{360} - 7176663385462718225281892469660516x^{432} + 214964887386601338148412964x^{504} + 1114384187445409x^{576} - x^{648}$

$Q_{k,d}$	$k = 9$	$k = 10$
$d = 1$	$1 + 55x^9 - 1870x^{18} - 19635x^{27} + 85085x^{36} + 136136x^{45} - 85085x^{54} - 19635x^{63} + 1870x^{72} + 55x^{81} - x^{90}$	$1 - 89x^{10} - 4895x^{20} + 83215x^{30} + 582505x^{40} - 1514513x^{50} - 1514513x^{60} + 582505x^{70} + 83215x^{80} - 4895x^{90} - 89x^{100} + x^{110}$
$d = 2$	$1 - 6765x^{18} + 5826920x^{36} - 718896255x^{54} + 12905899435x^{72} - 33789991248x^{90} + 12905899435x^{108} - 718896255x^{126} + 5826920x^{144} - 6765x^{162} + x^{180}$	$1 - 17711x^{20} + 39938305x^{40} - 12900072515x^{60} + 606303408205x^{80} - 4155934270787x^{100} + 4155934270787x^{120} - 606303408205x^{140} + 12900072515x^{160} - 39938305x^{180} + 17711x^{200} - x^{220}$
$d = 3$	$1 + 416020x^{27} - 10214227045x^{54} - 13929802341840x^{81} + 1058858447456810x^{108} + 4485393816767864x^{135} - 1058858447456810x^{162} - 13929802341840x^{189} + 10214227045x^{216} + 416020x^{243} - x^{270}$	$1 - 1762289x^{30} - 183286867445x^{60} + 1058848233229765x^{90} + 340949131099984330x^{120} - 6118080637738407338x^{150} - 6118080637738407338x^{180} + 340949131099984330x^{210} + 1058848233229765x^{240} - 183286867445x^{270} - 1762289x^{300} + x^{330}$
$d = 4$	$1 - 34111385x^{36} + 24252142155120x^{72} - 366865691151231195x^{108} + 118129637457410270835x^{144} - 809672583832254166752x^{180} + 118129637457410270835x^{216} - 366865691151231195x^{252} + 24252142155120x^{288} - 34111385x^{324} + x^{360}$	$1 - 233802911x^{40} + 1139334444463105x^{80} - 118129613205268115715x^{120} + 260712056344026731383005x^{160} - 12247917123244860240585987x^{200} + 12247917123244860240585987x^{240} - 260712056344026731383005x^{280} + 118129613205268115715x^{320} - 1139334444463105x^{360} + 233802911x^{400} - x^{440}$
$d = 5$	$1 + 2517253805x^{45} - 51942533145255670x^{90} - 8713926619638084013785x^{135} + 11885802349634698138102085x^{180} + 131815567970543875225944136x^{225} - 11885802349634698138102085x^{270} - 8713926619638084013785x^{315} + 51942533145255670x^{360} + 2517253805x^{405} - x^{450}$	$1 - 27916772489x^{50} - 6388509251932233695x^{100} + 11885802297692164992846415x^{150} + 179796531357189379846787719705x^{200} - 22113511499098533834161133568913x^{250} - 22113511499098533834161133568913x^{300} + 179796531357189379846787719705x^{350} + 11885802297692164992846415x^{400} - 6388509251932233695x^{450} - 27916772489x^{500} + x^{550}$
$d = 6$	$1 - 193501094490x^{54} + 115922704584208899245x^{108} - 215673966493600288985914680x^{162} + 1246164141189193192051800496210246164141073270487467591596965x^{180} + 22361508193995905188857487190748x^{270} + 1246164141189193192051800496210x^{324} - 215673966493600288985914680x^{378} + 115922704584208899245x^{432} - 193501094490x^{486} + x^{540}$	$1 - 3472236254411x^{60} + 37326750864243699460855x^{120} - 129204790474758830681614831956525130x^{180} + 41603541271901011840594247688561526862x^{240} - 41603541271901011840594247688561526862x^{300} - 129204790474758830681614831956525130x^{360} + 129204790474758830681614831956525130x^{420} + 1246164141073270487467591596965x^{480} - 37326750864243699460855x^{540} + 3472236254411x^{600} - x^{660}$
$d = 7$	$1 + 14645576208395x^{63} - 254742523351549990173670x^{126} - 5256163359001819595735486143215x^{189} + 128649854589930923589365400013477685x^{252} + 3735276722584557306050429259972187864x^{315} - 128649854589930923589365400013477685x^{378} + 5256163359001819595735486143215x^{441} + 254742523351549990173670x^{504} + 14645576208395x^{567} - x^{630}$	$1 - 425226130837289x^{70} - 214747644999257214458649695x^{140} + 128649854589676181066013850023304015x^{210} + 91424633214589609046019544477510928347705x^{280} - 77070857348224049851691987637237312002301713x^{350} - 77070857348224049851691987637237312002301713x^{420} + 91424633214589609046019544477510928347705x^{490} + 128649854589676181066013850023304015x^{560} - 214747644999257214458649695x^{630} - 425226130837289x^{700} + x^{770}$

$Q_{k,d}$	$k = 11$	$k = 12$
$d = 1$	$1 + 144x^{11} - 12816x^{22} - 352440x^{33} + 3994320x^{44} + 16776144x^{55} - 27261234x^{66} - 16776144x^{77} + 3994320x^{88} + 352440x^{99} - 12816x^{110} - 144x^{121} + x^{132}$	$1 - 233x^{12} - 33552x^{24} + 1493064x^{36} + 27372840x^{48} - 186135312x^{60} - 488605194x^{72} + 488605194x^{84} + 186135312x^{96} - 27372840x^{108} - 1493064x^{120} + 33552x^{132} + 233x^{144} - x^{156}$
$d = 2$	$1 - 46368x^{22} + 273741216x^{44} - 231482415780x^{66} + 28483360113120x^{88} - 511146844211808x^{110} + 1338210835193414x^{132} - 511146844211808x^{154} + 28483360113120x^{176} - 231482415780x^{198} + 273741216x^{220} - 46368x^{242} + x^{264}$	$1 - 121393x^{24} + 1876250208x^{48} - 4153783429236x^{72} + 1338111661846740x^{96} - 62866918803854112x^{120} + 430900339301416726x^{144} - 430900339301416726x^{168} + 62866918803854112x^{192} - 1338111661846740x^{216} + 4153783429236x^{240} - 1876250208x^{264} + 121393x^{288} - x^{312}$
$d = 3$	$1 + 7465176x^{33} - 3288949386966x^{66} - 80486395527387960x^{99} + 109784561365961724495x^{132} + 8345066461339202035056x^{165} - 35350269924852517598964x^{198} - 8345066461339202035056x^{231} + 109784561365961724495x^{264} + 80486395527387960x^{297} - 3288949386966x^{330} - 7465176x^{363} + x^{396}$	$1 - 31622993x^{36} - 59017802097942x^{72} + 6118024908316477014x^{108} + 35350287810525288435615x^{144} - 11382676772406157547453487x^{180} - 204253853166768077848422324x^{216} + 204253853166768077848422324x^{252} + 11382676772406157547453487x^{288} - 35350287810525288435615x^{324} - 6118024908316477014x^{360} + 59017802097942x^{396} + 31622993x^{432} - x^{468}$
$d = 4$	$1 - 1602508992x^{44} + 53524466747610816x^{88} - 38037368586405216140420x^{132} + 575391390221653790894176320x^{176} - 185274241514019282718241289792x^{220} + 1269888543172273599464436304134x^{264} - 185274241514019282718241289792x^{308} + 575391390221653790894176320x^{352} - 38037368586405216140420x^{396} + 53524466747610816x^{440} - 1602508992x^{484} + x^{528}$	$1 - 10983760033x^{48} + 2514510602693245248x^{96} - 12247914555209274562902436x^{144} + 1269888537507134711811160218340x^{192} - 2802643439134770696047181018213312x^{240} + 131664583921200466272770851376018406x^{288} - 131664583921200466272770851376018406x^{336} + 2802643439134770696047181018213312x^{384} - 1269888537507134711811160218340x^{432} + 12247914555209274562902436x^{480} - 2514510602693245248x^{528} + 10983760033x^{576} - x^{624}$
$d = 5$	$1 + 309601751184x^{55} - 785734695454519488816x^{110} - 16212243047978732685809270040x^{165} + 2719782117954401451250192843131120x^{220} + 3709784802732075988596630165796344144x^{275} - 41142143917049824001389120682695498674x^{330} + 3709784802732075988596630165796344144x^{385} - 2719782117954401451250192843131120x^{440} + 16212243047978732685809270040x^{495} - 785734695454519488816x^{550} - 309601751184x^{605} + x^{660}$	$1 - 3433536035513x^{60} - 96638979031653964890672x^{120} + 22113511403245289075636753953464x^{180} + 41142143918499699389483778039324498840x^{240} - 622357208313249323307860104770486616356912x^{300} - 76544876473361070146906000528699601970691034x^{360} + 76544876473361070146906000528699601970691034x^{420} - 622357208313249323307860104770486616356912x^{480} - 41142143918499699389483778039324498840x^{540} - 22113511403245289075636753953464x^{600} + 96638979031653964890672x^{660} + 3433536035513x^{720} - x^{780}$

$F_{n+d}^1$
$F_n + F_{n+1} - F_{n+2} = 0$
$F_n - 3F_{n+2} + F_{n+4} = 0$
$F_n + 4F_{n+3} - F_{n+6} = 0$
$F_n - 7F_{n+4} + F_{n+8} = 0$
$F_n + 11F_{n+5} - F_{n+10} = 0$
$F_n - 18F_{n+6} + F_{n+12} = 0$
$F_n + 29F_{n+7} - F_{n+14} = 0$
$F_n - 47F_{n+8} + F_{n+16} = 0$
$F_n + 76F_{n+9} - F_{n+18} = 0$
$F_n - 123F_{n+10} + F_{n+20} = 0$
$F_n + 199F_{n+11} - F_{n+22} = 0$
$F_n - 322F_{n+12} + F_{n+24} = 0$
$F_n + 521F_{n+13} - F_{n+26} = 0$
$F_n - 843F_{n+14} + F_{n+28} = 0$
$F_n + 1364F_{n+15} - F_{n+30} = 0$
$F_n - 2207F_{n+16} + F_{n+32} = 0$
$F_n + 3571F_{n+17} - F_{n+34} = 0$
$F_n - 5778F_{n+18} + F_{n+36} = 0$
$F_n + 9349F_{n+19} - F_{n+38} = 0$
$F_n - 15127F_{n+20} + F_{n+40} = 0$
$F_n + 24476F_{n+21} - F_{n+42} = 0$
$F_n - 39603F_{n+22} + F_{n+44} = 0$
$F_n + 64079F_{n+23} - F_{n+46} = 0$
$F_n - 103682F_{n+24} + F_{n+48} = 0$
$F_n + 167761F_{n+25} - F_{n+50} = 0$
$F_n - 271443F_{n+26} + F_{n+52} = 0$
$F_n + 439204F_{n+27} - F_{n+54} = 0$
$F_n - 710647F_{n+28} + F_{n+56} = 0$
$F_n + 1149851F_{n+29} - F_{n+58} = 0$
$F_n - 1860498F_{n+30} + F_{n+60} = 0$
$F_n + 3010349F_{n+31} - F_{n+62} = 0$
$F_n - 4870847F_{n+32} + F_{n+64} = 0$
$F_n + 7881196F_{n+33} - F_{n+66} = 0$
$F_n - 12752043F_{n+34} + F_{n+68} = 0$
$F_n + 20633239F_{n+35} - F_{n+70} = 0$
$F_n - 33385282F_{n+36} + F_{n+72} = 0$
$F_n + 54018521F_{n+37} - F_{n+74} = 0$
$F_n - 87403803F_{n+38} + F_{n+76} = 0$
$F_n + 141422324F_{n+39} - F_{n+78} = 0$
$F_n - 228826127F_{n+40} + F_{n+80} = 0$
$F_n + 370248451F_{n+41} - F_{n+82} = 0$



$F_{n+d}^2$
$F_n^2 - 2F_{n+1}^2 - 2F_{n+2}^2 + F_{n+3}^2 = 0$
$F_n^2 - 8F_{n+2}^2 + 8F_{n+4}^2 - F_{n+6}^2 = 0$
$F_n^2 - 17F_{n+3}^2 - 17F_{n+6}^2 + F_{n+9}^2 = 0$
$F_n^2 - 48F_{n+4}^2 + 48F_{n+8}^2 - F_{n+12}^2 = 0$
$F_n^2 - 122F_{n+5}^2 - 122F_{n+10}^2 + F_{n+15}^2 = 0$
$F_n^2 - 323F_{n+6}^2 + 323F_{n+12}^2 - F_{n+18}^2 = 0$
$F_n^2 - 842F_{n+7}^2 - 842F_{n+14}^2 + F_{n+21}^2 = 0$
$F_n^2 - 2208F_{n+8}^2 + 2208F_{n+16}^2 - F_{n+24}^2 = 0$
$F_n^2 - 5777F_{n+9}^2 - 5777F_{n+18}^2 + F_{n+27}^2 = 0$
$F_n^2 - 15128F_{n+10}^2 + 15128F_{n+20}^2 - F_{n+30}^2 = 0$
$F_n^2 - 39602F_{n+11}^2 - 39602F_{n+22}^2 + F_{n+33}^2 = 0$
$F_n^2 - 103683F_{n+12}^2 + 103683F_{n+24}^2 - F_{n+36}^2 = 0$
$F_n^2 - 271442F_{n+13}^2 - 271442F_{n+26}^2 + F_{n+39}^2 = 0$
$F_n^2 - 710648F_{n+14}^2 + 710648F_{n+28}^2 - F_{n+42}^2 = 0$
$F_n^2 - 1860497F_{n+15}^2 - 1860497F_{n+30}^2 + F_{n+45}^2 = 0$
$F_n^2 - 4870848F_{n+16}^2 + 4870848F_{n+32}^2 - F_{n+48}^2 = 0$
$F_n^2 - 12752042F_{n+17}^2 - 12752042F_{n+34}^2 + F_{n+51}^2 = 0$
$F_n^2 - 33385283F_{n+18}^2 + 33385283F_{n+36}^2 - F_{n+54}^2 = 0$
$F_n^2 - 87403802F_{n+19}^2 - 87403802F_{n+38}^2 + F_{n+57}^2 = 0$
$F_n^2 - 228826128F_{n+20}^2 + 228826128F_{n+40}^2 - F_{n+60}^2 = 0$
$F_n^2 - 599074577F_{n+21}^2 - 599074577F_{n+42}^2 + F_{n+63}^2 = 0$
$F_n^2 - 1568397608F_{n+22}^2 + 1568397608F_{n+44}^2 - F_{n+66}^2 = 0$
$F_n^2 - 4106118242F_{n+23}^2 - 4106118242F_{n+46}^2 + F_{n+69}^2 = 0$
$F_n^2 - 10749957123F_{n+24}^2 + 10749957123F_{n+48}^2 - F_{n+72}^2 = 0$
$F_n^2 - 28143753122F_{n+25}^2 - 28143753122F_{n+50}^2 + F_{n+75}^2 = 0$
$F_n^2 - 73681302248F_{n+26}^2 + 73681302248F_{n+52}^2 - F_{n+78}^2 = 0$
$F_n^2 - 192900153617F_{n+27}^2 - 192900153617F_{n+54}^2 + F_{n+81}^2 = 0$
$F_n^2 - 505019158608F_{n+28}^2 + 505019158608F_{n+56}^2 - F_{n+84}^2 = 0$
$F_n^2 - 1322157322202F_{n+29}^2 - 1322157322202F_{n+58}^2 + F_{n+87}^2 = 0$
$F_n^2 - 3461452808003F_{n+30}^2 + 3461452808003F_{n+60}^2 - F_{n+90}^2 = 0$
$F_n^2 - 9062201101802F_{n+31}^2 - 9062201101802F_{n+62}^2 + F_{n+93}^2 = 0$
$F_n^2 - 23725150497408F_{n+32}^2 + 23725150497408F_{n+64}^2 - F_{n+96}^2 = 0$
$F_n^2 - 62113250390417F_{n+33}^2 - 62113250390417F_{n+66}^2 + F_{n+99}^2 = 0$
$F_n^2 - 162614600673848F_{n+34}^2 + 162614600673848F_{n+68}^2 - F_{n+102}^2 = 0$
$F_n^2 - 425730551631122F_{n+35}^2 - 425730551631122F_{n+70}^2 + F_{n+105}^2 = 0$
$F_n^2 - 1114577054219523F_{n+36}^2 + 1114577054219523F_{n+72}^2 - F_{n+108}^2 = 0$
$F_n^2 - 2918000611027442F_{n+37}^2 - 2918000611027442F_{n+74}^2 + F_{n+111}^2 = 0$
$F_n^2 - 7639424778862808F_{n+38}^2 + 7639424778862808F_{n+76}^2 - F_{n+114}^2 = 0$
$F_n^2 - 20000273725560977F_{n+39}^2 - 20000273725560977F_{n+78}^2 + F_{n+117}^2 = 0$
$F_n^2 - 52361396397820128F_{n+40}^2 + 52361396397820128F_{n+80}^2 - F_{n+120}^2 = 0$
$F_n^2 - 137083915467899402F_{n+41}^2 - 137083915467899402F_{n+82}^2 + F_{n+123}^2 = 0$

$F_{n+d}^3$
$F_n^3 + 3F_{n+1}^3 - 6F_{n+2}^3 - 3F_{n+3}^3 + F_{n+4}^3 = 0$
$F_n^3 - 21F_{n+2}^3 + 56F_{n+4}^3 - 21F_{n+6}^3 + F_{n+8}^3 = 0$
$F_n^3 + 72F_{n+3}^3 - 306F_{n+6}^3 - 72F_{n+9}^3 + F_{n+12}^3 = 0$
$F_n^3 - 329F_{n+4}^3 + 2256F_{n+8}^3 - 329F_{n+12}^3 + F_{n+16}^3 = 0$
$F_n^3 + 1353F_{n+5}^3 - 15006F_{n+10}^3 - 1353F_{n+15}^3 + F_{n+20}^3 = 0$
$F_n^3 - 5796F_{n+6}^3 + 104006F_{n+12}^3 - 5796F_{n+18}^3 + F_{n+24}^3 = 0$
$F_n^3 + 24447F_{n+7}^3 - 709806F_{n+14}^3 - 24447F_{n+21}^3 + F_{n+28}^3 = 0$
$F_n^3 - 103729F_{n+8}^3 + 4873056F_{n+16}^3 - 103729F_{n+24}^3 + F_{n+32}^3 = 0$
$F_n^3 + 439128F_{n+9}^3 - 33379506F_{n+18}^3 - 439128F_{n+27}^3 + F_{n+36}^3 = 0$
$F_n^3 - 1860621F_{n+10}^3 + 228841256F_{n+20}^3 - 1860621F_{n+30}^3 + F_{n+40}^3 = 0$
$F_n^3 + 7880997F_{n+11}^3 - 1568358006F_{n+22}^3 - 7880997F_{n+33}^3 + F_{n+44}^3 = 0$
$F_n^3 - 33385604F_{n+12}^3 + 10750060806F_{n+24}^3 - 33385604F_{n+36}^3 + F_{n+48}^3 = 0$
$F_n^3 + 141421803F_{n+13}^3 - 73681030806F_{n+26}^3 - 141421803F_{n+39}^3 + F_{n+52}^3 = 0$
$F_n^3 - 599075421F_{n+14}^3 + 505019869256F_{n+28}^3 - 599075421F_{n+42}^3 + F_{n+56}^3 = 0$
$F_n^3 + 2537719272F_{n+15}^3 - 3461450947506F_{n+30}^3 - 2537719272F_{n+45}^3 + F_{n+60}^3 = 0$
$F_n^3 - 10749959329F_{n+16}^3 + 23725155368256F_{n+32}^3 - 10749959329F_{n+48}^3 + F_{n+64}^3 = 0$
$F_n^3 + 45537545553F_{n+17}^3 - 162614587921806F_{n+34}^3 - 45537545553F_{n+51}^3 + F_{n+68}^3 = 0$
$F_n^3 - 192900159396F_{n+18}^3 + 1114577087604806F_{n+36}^3 - 192900159396F_{n+54}^3 + F_{n+72}^3 = 0$
$F_n^3 + 817138154247F_{n+19}^3 - 7639424691459006F_{n+38}^3 - 817138154247F_{n+57}^3 + F_{n+76}^3 = 0$
$F_n^3 - 3461452823129F_{n+20}^3 + 52361396626646256F_{n+40}^3 - 3461452823129F_{n+60}^3 + F_{n+80}^3 = 0$
$F_n^3 + 14662949371128F_{n+21}^3 - 358890349406803506F_{n+42}^3 - 14662949371128F_{n+63}^3 + F_{n+84}^3 = 0$
$F_n^3 - 62113250430021F_{n+22}^3 + 2459871055211724056F_{n+44}^3 - 62113250430021F_{n+66}^3 + F_{n+88}^3 = 0$
$F_n^3 + 263115950893197F_{n+23}^3 - 16860207021391288806F_{n+46}^3 - 263115950893197F_{n+69}^3 + F_{n+92}^3 = 0$
$F_n^3 - 1114577054323204F_{n+24}^3 + 115561578135588480006F_{n+48}^3 - 1114577054323204F_{n+72}^3 + F_{n+96}^3 = 0$
$F_n^3 + 4721424167667603F_{n+25}^3 - 792070839820228500006F_{n+50}^3 - 4721424167667603F_{n+75}^3 + F_{n+100}^3 = 0$
$F_n^3 - 20000273725832421F_{n+26}^3 + 5428934300887448551256F_{n+52}^3 - 20000273725832421F_{n+78}^3 + F_{n+104}^3 = 0$
$F_n^3 + 84722519069640072F_{n+27}^3 - 37210469265655098336306F_{n+54}^3 - 84722519069640072F_{n+81}^3 + F_{n+108}^3 = 0$
$F_n^3 - 358890350006588729F_{n+28}^3 + 255044350560627241339056F_{n+56}^3 - 358890350006588729F_{n+84}^3 + F_{n+112}^3 = 0$
$F_n^3 + 1520283919092441753F_{n+29}^3 - 1748099984653685399451006F_{n+58}^3 - 1520283919092441753F_{n+87}^3 + F_{n+116}^3 = 0$
$F_n^3 - 6440026026382104996F_{n+30}^3 + 11981655542028392128040006F_{n+60}^3 - 6440026026382104996F_{n+90}^3 + F_{n+120}^3 = 0$
$F_n^3 + 27280388024611559247F_{n+31}^3 - 82123488809510444968749006F_{n+62}^3 - 27280388024611559247F_{n+93}^3 + F_{n+124}^3 = 0$
$F_n^3 - 115561578124843393729F_{n+32}^3 + 562882766124635344664221056F_{n+64}^3 - 115561578124843393729F_{n+96}^3 + F_{n+128}^3 = 0$
$F_n^3 + 489526700523960779928F_{n+33}^3 - 3858055874062699716175824306F_{n+66}^3 - 489526700523960779928F_{n+99}^3 + F_{n+132}^3 = 0$
$F_n^3 - 2073668380220725919421F_{n+34}^3 + 26443508352314883801070453256F_{n+68}^3 - 2073668380220725919421F_{n+102}^3 + F_{n+136}^3 = 0$
$F_n^3 + 8784200221406800697397F_{n+35}^3 - 181246502592139860745310610006F_{n+70}^3 - 8784200221406800697397F_{n+105}^3 + F_{n+140}^3 = 0$
$F_n^3 - 37210469265848031875204F_{n+36}^3 + 1242282009792668398721620128006F_{n+72}^3 - 37210469265848031875204F_{n+108}^3 + F_{n+144}^3 = 0$
$F_n^3 + 157626077284798761271803F_{n+37}^3 - 8514727565956527784535488090806F_{n+74}^3 - 157626077284798761271803F_{n+111}^3 + F_{n+148}^3 = 0$
$F_n^3 - 667714778405043347055021F_{n+38}^3 + 58360810951903055273032906782056F_{n+76}^3 - 667714778405043347055021F_{n+114}^3 + F_{n+152}^3 = 0$
$F_n^3 + 2828485190904971712472872F_{n+39}^3 - 400010949097364782732447070755506F_{n+78}^3 - 2828485190904971712472872F_{n+117}^3 + F_{n+156}^3 = 0$
$F_n^3 - 11981655542024930904058129F_{n+40}^3 + 2741715832729650623856833844116256F_{n+80}^3 - 11981655542024930904058129F_{n+120}^3 + F_{n+160}^3 = 0$

$F_{n+d}^4$
$F_n^4 - 5F_{n+1}^4 - 15F_{n+2}^4 + 15F_{n+3}^4 + 5F_{n+4}^4 - F_{n+5}^4 = 0$
$F_n^4 - 55F_{n+2}^4 + 385F_{n+4}^4 - 385F_{n+6}^4 + 55F_{n+8}^4 - F_{n+10}^4 = 0$
$F_n^4 - 305F_{n+3}^4 - 5490F_{n+6}^4 + 5490F_{n+9}^4 + 305F_{n+12}^4 - F_{n+15}^4 = 0$
$F_n^4 - 2255F_{n+4}^4 + 105985F_{n+8}^4 - 105985F_{n+12}^4 + 2255F_{n+16}^4 - F_{n+20}^4 = 0$
$F_n^4 - 15005F_{n+5}^4 - 1845615F_{n+10}^4 + 1845615F_{n+15}^4 + 15005F_{n+20}^4 - F_{n+25}^4 = 0$
$F_n^4 - 104005F_{n+6}^4 + 33489610F_{n+12}^4 - 33489610F_{n+18}^4 + 104005F_{n+24}^4 - F_{n+30}^4 = 0$
$F_n^4 - 709805F_{n+7}^4 - 598365615F_{n+14}^4 + 598365615F_{n+21}^4 + 709805F_{n+28}^4 - F_{n+35}^4 = 0$
$F_n^4 - 4873055F_{n+8}^4 + 10754832385F_{n+16}^4 - 10754832385F_{n+24}^4 + 4873055F_{n+32}^4 - F_{n+40}^4 = 0$
$F_n^4 - 33379505F_{n+9}^4 - 192866779890F_{n+18}^4 + 192866779890F_{n+27}^4 + 33379505F_{n+36}^4 - F_{n+45}^4 = 0$
$F_n^4 - 228841255F_{n+10}^4 + 3461681664385F_{n+20}^4 - 3461681664385F_{n+30}^4 + 228841255F_{n+40}^4 - F_{n+50}^4 = 0$
$F_n^4 - 1568358005F_{n+11}^4 - 62111682072015F_{n+22}^4 + 62111682072015F_{n+33}^4 + 1568358005F_{n+44}^4 - F_{n+55}^4 = 0$
$F_n^4 - 10750060805F_{n+12}^4 + 1114587804384010F_{n+24}^4 - 1114587804384010F_{n+36}^4 + 10750060805F_{n+48}^4 - F_{n+60}^4 = 0$
$F_n^4 - 73681030805F_{n+13}^4 - 20000200044801615F_{n+26}^4 + 20000200044801615F_{n+39}^4 + 73681030805F_{n+52}^4 - F_{n+65}^4 = 0$
$F_n^4 - 505019869255F_{n+14}^4 + 358890855026457985F_{n+28}^4 - 358890855026457985F_{n+42}^4 + 505019869255F_{n+56}^4 - F_{n+70}^4 = 0$
$F_n^4 - 3461450947505F_{n+15}^4 - 6440022564931157490F_{n+30}^4 + 6440022564931157490F_{n+45}^4 + 3461450947505F_{n+60}^4 - F_{n+75}^4 = 0$
$F_n^4 - 23725155368255F_{n+16}^4 + 115561601849998761985F_{n+32}^4 - 115561601849998761985F_{n+48}^4 + 23725155368255F_{n+64}^4 - F_{n+80}^4 = 0$
$F_n^4 - 162614587921805F_{n+17}^4 - 2073668217606137997615F_{n+34}^4 + 2073668217606137997615F_{n+51}^4 + 162614587921805F_{n+68}^4 - F_{n+85}^4 = 0$
$F_n^4 - 1114577087604805F_{n+18}^4 + 37210470380425119480010F_{n+36}^4 - 37210470380425119480010F_{n+54}^4 + 1114577087604805F_{n+72}^4 - F_{n+90}^4 = 0$
$F_n^4 - 7639424691459005F_{n+19}^4 - 667714770765618655596015F_{n+38}^4 + 667714770765618655596015F_{n+57}^4 + 7639424691459005F_{n+76}^4 - F_{n+95}^4 = 0$
$F_n^4 - 52361396626646255F_{n+20}^4 + 11981655594386327530704385F_{n+40}^4 - 11981655594386327530704385F_{n+60}^4 + 52361396626646255F_{n+80}^4 - F_{n+100}^4 = 0$
$F_n^4 - 358890349406803505F_{n+21}^4 - 215002084619153360086795890F_{n+42}^4 + 215002084619153360086795890F_{n+63}^4 + 358890349406803505F_{n+84}^4 - F_{n+105}^4 = 0$
$F_n^4 - 2459871055211724055F_{n+22}^4 + 3858055876522632886206336385F_{n+44}^4 - 3858055876522632886206336385F_{n+66}^4 + 2459871055211724055F_{n+88}^4 - F_{n+110}^4 = 0$
$F_n^4 - 16860207021391288805F_{n+23}^4 - 69230003631291462203492169615F_{n+46}^4 + 69230003631291462203492169615F_{n+69}^4 + 16860207021391288805F_{n+92}^4 - F_{n+115}^4 = 0$
$F_n^4 - 115561578135588480005F_{n+24}^4 + 1242282009908228862290904345610F_{n+48}^4 - 1242282009908228862290904345610F_{n+72}^4 + 115561578135588480005F_{n+96}^4 - F_{n+120}^4 = 0$
$F_n^4 - 792070839820228500005F_{n+25}^4 - 22291846171827788605589324265615F_{n+50}^4 + 22291846171827788605589324265615F_{n+75}^4 + 792070839820228500005F_{n+100}^4 - F_{n+125}^4 = 0$
$F_n^4 - 5428934300887448551255F_{n+26}^4 + 400010949102793737033681926169985F_{n+52}^4 - 400010949102793737033681926169985F_{n+78}^4 + 5428934300887448551255F_{n+104}^4 - F_{n+130}^4 = 0$
$F_n^4 - 37210469265655098336305F_{n+27}^4 - 7177905237542736120478130726501490F_{n+54}^4 + 7177905237542736120478130726501490F_{n+81}^4 + 37210469265655098336305F_{n+108}^4 - F_{n+135}^4 = 0$
$F_n^4 - 255044350560627241339055F_{n+28}^4 + 128802283327596718163213084108496385F_{n+56}^4 - 128802283327596718163213084108496385F_{n+84}^4 + 255044350560627241339055F_{n+112}^4 - F_{n+140}^4 = 0$
$F_n^4 - 1748099984653685399451005F_{n+29}^4 - 2311263194652822082053339177097164015F_{n+58}^4 + 2311263194652822082053339177097164015F_{n+87}^4 + 1748099984653685399451005F_{n+116}^4 - F_{n+145}^4 = 0$
$F_n^4 - 11981655542028392128040005F_{n+30}^4 + 41473935220466903258413227627840120010F_{n+60}^4 - 41473935220466903258413227627840120010F_{n+90}^4 + 11981655542028392128040005F_{n+120}^4 - F_{n+150}^4 = 0$

$F_{n+d}^5$
$F_n^5 + 8F_{n+1}^5 - 40F_{n+2}^5 - 60F_{n+3}^5 + 40F_{n+4}^5 + 8F_{n+5}^5 - F_{n+6}^5 = 0$
$F_n^5 - 144F_{n+2}^5 + 2640F_{n+4}^5 - 6930F_{n+6}^5 + 2640F_{n+8}^5 - 144F_{n+10}^5 + F_{n+12}^5 = 0$
$F_n^5 + 1292F_{n+3}^5 - 98515F_{n+6}^5 - 417240F_{n+9}^5 + 98515F_{n+12}^5 + 1292F_{n+15}^5 - F_{n+18}^5 = 0$
$F_n^5 - 15456F_{n+4}^5 + 4979040F_{n+8}^5 - 34127170F_{n+12}^5 + 4979040F_{n+16}^5 - 15456F_{n+20}^5 + F_{n+24}^5 = 0$
$F_n^5 + 166408F_{n+5}^5 - 226995640F_{n+10}^5 - 2517418860F_{n+15}^5 + 226995640F_{n+20}^5 + 166408F_{n+25}^5 - F_{n+30}^5 = 0$
$F_n^5 - 1866294F_{n+6}^5 + 10783550415F_{n+12}^5 - 193502966580F_{n+18}^5 + 10783550415F_{n+24}^5 - 1866294F_{n+30}^5 + F_{n+36}^5 = 0$
$F_n^5 + 20608792F_{n+7}^5 - 504421503640F_{n+14}^5 - 14645596792740F_{n+21}^5 + 504421503640F_{n+28}^5 + 20608792F_{n+35}^5 - F_{n+42}^5 = 0$
$F_n^5 - 228929856F_{n+8}^5 + 23735910200640F_{n+16}^5 - 1115082531341570F_{n+24}^5 + 23735910200640F_{n+32}^5 - 228929856F_{n+40}^5 + F_{n+48}^5 = 0$
$F_n^5 + 2537281508F_{n+9}^5 - 1114384220824915F_{n+18}^5 - 84707861194807560F_{n+27}^5 + 1114384220824915F_{n+36}^5 + 2537281508F_{n+45}^5 - F_{n+54}^5 = 0$
$F_n^5 - 28145613744F_{n+10}^5 + 52364858308310640F_{n+20}^5 - 6440451813224963730F_{n+30}^5 + 52364858308310640F_{n+40}^5 - 28145613744F_{n+50}^5 + F_{n+60}^5 = 0$
$F_n^5 + 312111123992F_{n+11}^5 - 2459808943529652040F_{n+22}^5 - 489514340299236329940F_{n+33}^5 + 2459808943529652040F_{n+44}^5 + 312111123992F_{n+55}^5 - F_{n+66}^5 = 0$
$F_n^5 - 3461486193606F_{n+12}^5 + 115562692723392864015F_{n+24}^5 - 37210828163121010140820F_{n+36}^5 + 115562692723392864015F_{n+48}^5 - 3461486193606F_{n+60}^5 + F_{n+72}^5 = 0$
$F_n^5 + 38387958471208F_{n+13}^5 - 5428914300687403749640F_{n+26}^5 - 2828474770800748512253260F_{n+39}^5 + 5428914300687403749640F_{n+52}^5 + 38387958471208F_{n+65}^5 - F_{n+78}^5 = 0$
$F_n^5 - 425731150706544F_{n+14}^5 + 255044709451482267797040F_{n+28}^5 - 215002387523034496198605330F_{n+42}^5 + 255044709451482267797040F_{n+56}^5 - 425731150706544F_{n+70}^5 + F_{n+84}^5 = 0$
$F_n^5 + 4721421630116092F_{n+15}^5 - 11981649102005827196882515F_{n+30}^5 - 16342978159331448281738963640F_{n+45}^5 + 11981649102005827196882515F_{n+60}^5 + 4721421630116092F_{n+75}^5 - F_{n+90}^5 = 0$
$F_n^5 - 52361407147779456F_{n+16}^5 + 562882881686237194662983040F_{n+32}^5 - 1242282264837122567091833607170F_{n+48}^5 + 562882881686237194662983040F_{n+64}^5 - 52361407147779456F_{n+80}^5 + F_{n+96}^5 = 0$
$F_n^5 + 580696739006311208F_{n+17}^5 - 26443506278646666194932455640F_{n+34}^5 - 94429768326117030750316057339260F_{n+51}^5 + 26443506278646666194932455640F_{n+68}^5 + 580696739006311208F_{n+85}^5 - F_{n+102}^5 = 0$
$F_n^5 - 6440026219280403894F_{n+18}^5 + 1242282047003138779146739608015F_{n+36}^5 - 7177905452582044447839933280176180F_{n+54}^5 + 1242282047003138779146739608015F_{n+72}^5 - 6440026219280403894F_{n+90}^5 + F_{n+108}^5 = 0$
$F_n^5 + 71420982257588391992F_{n+19}^5 - 58360810284188284507414251186040F_{n+38}^5 - 545615221589341735168566085955669940F_{n+57}^5 + 58360810284188284507414251186040F_{n+76}^5 + 71420982257588391992F_{n+95}^5 - F_{n+114}^5 = 0$
$F_n^5 - 792070843309825076256F_{n+20}^5 + 2741715844711306218243161374820640F_{n+40}^5 - 41473935401701425779153172331224488770F_{n+60}^5 + 2741715844711306218243161374820640F_{n+80}^5 - 792070843309825076256F_{n+100}^5 + F_{n+120}^5 = 0$
$F_n^5 + 8784200206743871959508F_{n+21}^5 - 128802283112339589552388941767080915F_{n+42}^5 - 3152564686720014825806869572256411267560F_{n+63}^5 + 128802283112339589552388941767080915F_{n+84}^5 + 8784200206743871959508F_{n+105}^5 - F_{n+126}^5 = 0$
$F_n^5 - 97418273337436657320144F_{n+22}^5 + 6050965604410384897605650239259306640F_{n+44}^5 - 239636390678673886319369009632506688758930F_{n+66}^5 + 6050965604410384897605650239259306640F_{n+88}^5 - 97418273337436657320144F_{n+110}^5 + F_{n+132}^5 = 0$
$F_n^5 + 1080385205986848346228792F_{n+23}^5 - 284266580873402118587043968942410497640F_{n+46}^5 - 18215518240222923760709101298122029410368740F_{n+69}^5 + 284266580873402118587043968942410497640F_{n+92}^5 + 1080385205986848346228792F_{n+115}^5 - F_{n+138}^5 = 0$
$F_n^5 - 11981655543139507729555206F_{n+24}^5 + 13354478339945439424474502827775380454415F_{n+48}^5 - 1384619023113420767069042072833615536696998420F_{n+72}^5 + 13354478339945439424474502827775380454415F_{n+96}^5 - 11981655543139507729555206F_{n+120}^5 + F_{n+144}^5 = 0$
$F_n^5 + 132878596163802777557006408F_{n+25}^5 - 627376215315813920185946289216041609265640F_{n+50}^5 - 105249261261335961470079415665593708393526208860F_{n+75}^5 + 627376215315813920185946289216041609265640F_{n+100}^5 + 132878596163802777557006408F_{n+125}^5 - F_{n+150}^5 = 0$

$F_{n+d}^6$
$F_n^6 - 13F_{n+1}^6 - 104F_{n+2}^6 + 260F_{n+3}^6 + 260F_{n+4}^6 - 104F_{n+5}^6 - 13F_{n+6}^6 + F_{n+7}^6 = 0$
$F_n^6 - 377F_{n+2}^6 + 18096F_{n+4}^6 - 124410F_{n+6}^6 + 124410F_{n+8}^6 - 18096F_{n+10}^6 + 377F_{n+12}^6 - F_{n+14}^6 = 0$
$F_n^6 - 5473F_{n+3}^6 - 1767779F_{n+6}^6 + 31716035F_{n+9}^6 + 31716035F_{n+12}^6 - 1767779F_{n+15}^6 - 5473F_{n+18}^6 + F_{n+21}^6 = 0$
$F_n^6 - 105937F_{n+4}^6 + 233908896F_{n+8}^6 - 10988845010F_{n+12}^6 + 10988845010F_{n+16}^6 - 233908896F_{n+20}^6 + 105937F_{n+24}^6 - F_{n+28}^6 = 0$
$F_n^6 - 1845493F_{n+5}^6 - 27918618104F_{n+10}^6 + 3433761185660F_{n+15}^6 + 3433761185660F_{n+20}^6 - 27918618104F_{n+25}^6 - 1845493F_{n+30}^6 + F_{n+35}^6 = 0$
$F_n^6 - 33489287F_{n+6}^6 + 3472269744021F_{n+12}^6 - 1118060107513635F_{n+18}^6 + 1118060107513635F_{n+24}^6 - 3472269744021F_{n+30}^6 + 33489287F_{n+36}^6 - F_{n+42}^6 = 0$
$F_n^6 - 598364773F_{n+7}^6 - 425226729202904F_{n+14}^6 + 358465627698179660F_{n+21}^6 + 358465627698179660F_{n+28}^6 - 425226729202904F_{n+35}^6 - 598364773F_{n+42}^6 + F_{n+49}^6 = 0$
$F_n^6 - 10754830177F_{n+8}^6 + 52385143057980096F_{n+16}^6 - 115613987003806701410F_{n+24}^6 + 115613987003806701410F_{n+32}^6 - 52385143057980096F_{n+40}^6 + 10754830177F_{n+48}^6 - F_{n+56}^6 = 0$
$F_n^6 - 192866774113F_{n+9}^6 - 6438911835059578979F_{n+18}^6 + 37204031468397159741635F_{n+27}^6 + 37204031468397159741635F_{n+36}^6 - 6438911835059578979F_{n+45}^6 - 192866774113F_{n+54}^6 + F_{n+63}^6 = 0$
$F_n^6 - 3461681649257F_{n+10}^6 + 792123208168133386896F_{n+20}^6 - 11982447717597957116914410F_{n+30}^6 + 11982447717597957116914410F_{n+40}^6 - 792123208168133386896F_{n+50}^6 + 3461681649257F_{n+60}^6 - F_{n+70}^6 = 0$
$F_n^6 - 62111682032413F_{n+11}^6 - 97415813528493127668104F_{n+22}^6 + 3857958460709042279828238260F_{n+33}^6 + 3857958460709042279828238260F_{n+44}^6 - 97415813528493127668104F_{n+55}^6 - 62111682032413F_{n+66}^6 + F_{n+77}^6 = 0$
$F_n^6 - 1114587804280327F_{n+12}^6 + 11981771105832231122419221F_{n+24}^6 - 1242293991679335809099081088035F_{n+36}^6 + 1242293991679335809099081088035F_{n+48}^6 - 11981771105832231122419221F_{n+60}^6 + 1114587804280327F_{n+72}^6 - F_{n+84}^6 = 0$
$F_n^6 - 20000200044530173F_{n+13}^6 - 1473640784501490735968728904F_{n+26}^6 + 400009475462009215542672231608660F_{n+39}^6 + 400009475462009215542672231608660F_{n+52}^6 - 1473640784501490735968728904F_{n+65}^6 - 20000200044530173F_{n+78}^6 + F_{n+91}^6 = 0$
$F_n^6 - 358890855025747337F_{n+14}^6 + 181246757637208628308136626896F_{n+28}^6 - 128802464574354355730731742251712010F_{n+42}^6 + 128802464574354355730731742251712010F_{n+56}^6 - 181246757637208628308136626896F_{n+70}^6 + 358890855025747337F_{n+84}^6 - F_{n+98}^6 = 0$
$F_n^6 - 6440022564929296993F_{n+15}^6 - 22291834190977197465580594234979F_{n+30}^6 + 41473912928632712274775736020863780035F_{n+45}^6 + 41473912928632712274775736020863780035F_{n+60}^6 - 22291834190977197465580594234979F_{n+75}^6 - 6440022564929296993F_{n+90}^6 + F_{n+105}^6 = 0$
$F_n^6 - 115561601849993891137F_{n+16}^6 + 2741716395612647819310756952672896F_{n+32}^6 - 13354481080420115909980217935311248371010F_{n+48}^6 + 13354481080420115909980217935311248371010F_{n+64}^6 - 2741716395612647819310756952672896F_{n+80}^6 + 115561601849993891137F_{n+96}^6 - F_{n+112}^6 = 0$
$F_n^6 - 2073668217606125245573F_{n+17}^6 - 337208729136070195456207450278874904F_{n+34}^6 + 4300100213918493539967609707992773709727660F_{n+51}^6 + 4300100213918493539967609707992773709727660F_{n+68}^6 - 337208729136070195456207450278874904F_{n+85}^6 - 2073668217606125245573F_{n+102}^6 + F_{n+119}^6 = 0$
$F_n^6 - 37210470380425086094727F_{n+18}^6 + 41473936462737005816479240769030755221F_{n+36}^6 - 1384619064458556188736789907551589908072544035F_{n+54}^6 + 1384619064458556188736789907551589908072544035F_{n+72}^6 - 41473936462737005816479240769030755221F_{n+90}^6 + 37210470380425086094727F_{n+108}^6 - F_{n+126}^6 = 0$
$F_n^6 - 667714770765618568192213F_{n+19}^6 - 5100956764999566166279216484438500914104F_{n+38}^6 + 445843020199539317922122928697160026478846559260F_{n+57}^6 + 445843020199539317922122928697160026478846559260F_{n+76}^6 - 5100956764999566166279216484438500914104F_{n+95}^6 - 667714770765618568192213F_{n+114}^6 + F_{n+133}^6 = 0$
$F_n^6 - 11981655594386327301878257F_{n+20}^6 + 627376218079821623049943767249874840156896F_{n+40}^6 - 143560070155112956111656727097927677051012511079410F_{n+60}^6 + 143560070155112956111656727097927677051012511079410F_{n+80}^6 - 627376218079821623049943767249874840156896F_{n+100}^6 + 11981655594386327301878257F_{n+120}^6 - F_{n+140}^6 = 0$

$F_{n+d}^7$
$F_n^7 + 21F_{n+1}^7 - 273F_{n+2}^7 - 1092F_{n+3}^7 + 1820F_{n+4}^7 + 1092F_{n+5}^7 - 273F_{n+6}^7 - 21F_{n+7}^7 + F_{n+8}^7 = 0$
$F_n^7 - 987F_{n+2}^7 + 124033F_{n+4}^7 - 2232594F_{n+6}^7 + 5847270F_{n+8}^7 - 2232594F_{n+10}^7 + 124033F_{n+12}^7 - 987F_{n+14}^7 + F_{n+16}^7 = 0$
$F_n^7 + 23184F_{n+3}^7 - 31721508F_{n+6}^7 - 2410834608F_{n+9}^7 + 10212563270F_{n+12}^7 + 2410834608F_{n+15}^7 - 31721508F_{n+18}^7 - 23184F_{n+21}^7 + F_{n+24}^7 = 0$
$F_n^7 - 726103F_{n+4}^7 + 10988739073F_{n+8}^7 - 3538373981506F_{n+12}^7 + 24252380937070F_{n+16}^7 - 3538373981506F_{n+20}^7 + 10988739073F_{n+24}^7 - 726103F_{n+28}^7 + F_{n+32}^7 = 0$
$F_n^7 + 20466831F_{n+5}^7 - 3433763031153F_{n+10}^7 - 4683652774492692F_{n+15}^7 + 51942505455478820F_{n+20}^7 + 4683652774492692F_{n+25}^7 - 3433763031153F_{n+30}^7 - 20466831F_{n+35}^7 + F_{n+40}^7 = 0$
$F_n^7 - 600940872F_{n+6}^7 + 1118060074024348F_{n+12}^7 - 6460151107712682744F_{n+18}^7 + 115922708067228704070F_{n+24}^7 - 6460151107712682744F_{n+30}^7 + 1118060074024348F_{n+36}^7 - 600940872F_{n+42}^7 + F_{n+48}^7 = 0$
$F_n^7 + 17373187209F_{n+7}^7 - 358465628296544433F_{n+14}^7 - 8773804718186221542108F_{n+21}^7 + 254742522926828280840020F_{n+28}^7 + 8773804718186221542108F_{n+35}^7 - 358465628296544433F_{n+42}^7 - 17373187209F_{n+49}^7 + F_{n+56}^7 = 0$
$F_n^7 - 505248088463F_{n+8}^7 + 115613986993051871233F_{n+16}^7 - 11987089399413604113179906F_{n+24}^7 + 563138041755530860142794270F_{n+32}^7 - 11987089399413604113179906F_{n+40}^7 + 115613986993051871233F_{n+48}^7 - 505248088463F_{n+56}^7 + F_{n+64}^7 = 0$
$F_n^7 + 14660412114096F_{n+9}^7 - 37204031468590026515748F_{n+18}^7 - 16340159437130614005822584592F_{n+27}^7 + 1242067082109313265973531616070F_{n+36}^7 + 16340159437130614005822584592F_{n+45}^7 - 37204031468590026515748F_{n+54}^7 - 14660412114096F_{n+63}^7 + F_{n+72}^7 = 0$
$F_n^7 - 425758697244867F_{n+10}^7 + 11982447717594495435265153F_{n+20}^7 - 22293320013689123568319946626194F_{n+30}^7 + 2741897103197930270175610630790070F_{n+40}^7 - 22293320013689123568319946626194F_{n+50}^7 + 11982447717594495435265153F_{n+60}^7 - 425758697244867F_{n+70}^7 + F_{n+80}^7 = 0$
$F_n^7 + 12360536835574179F_{n+11}^7 - 3857958460709104391510270673F_{n+22}^7 - 30405326788706750693953179186964908F_{n+33}^7 + 6050812817681465434944433258009843820F_{n+44}^7 + 30405326788706750693953179186964908F_{n+55}^7 - 3857958460709104391510270673F_{n+66}^7 - 12360536835574179F_{n+77}^7 + F_{n+88}^7 = 0$
$F_n^7 - 358893811492071688F_{n+12}^7 + 1242293991679334694511276807708F_{n+24}^7 - 41474335239120242348642828405391353656F_{n+36}^7 + 13354607143471084721254299145977357235270F_{n+48}^7 - 41474335239120242348642828405391353656F_{n+60}^7 + 1242293991679334694511276807708F_{n+72}^7 - 358893811492071688F_{n+84}^7 + F_{n+96}^7 = 0$
$F_n^7 + 10420142611158691341F_{n+13}^7 - 400009475462009235542872276138833F_{n+26}^7 - 56570269641858319799936398926723509507892F_{n+39}^7 + 29473219063180230976299002823211664482659020F_{n+52}^7 + 56570269641858319799936398926723509507892F_{n+65}^7 - 400009475462009235542872276138833F_{n+78}^7 - 10420142611158691341F_{n+91}^7 + F_{n+104}^7 = 0$
$F_n^7 - 30254456505554298547F_{n+14}^7 + 12880246457435435371840887225964673F_{n+28}^7 - 77162282110241285066847612598040377120382994F_{n+42}^7 + 65047712285848361121399713124386790895476770070F_{n+56}^7 - 77162282110241285066847612598040377120382994F_{n+70}^7 + 12880246457435435371840887225964673F_{n+84}^7 - 30254456505554298547F_{n+98}^7 + F_{n+112}^7 = 0$
$F_n^7 + 8784195499985191214544F_{n+15}^7 - 41473912928632712281215758585793077028F_{n+30}^7 - 105249204694658429220691865731561267999893149808F_{n+45}^7 + 143559992365646153330035804444235229459686815840070F_{n+60}^7 + 105249204694658429220691865731561267999893149808F_{n+75}^7 - 41473912928632712281215758585793077028F_{n+90}^7 - 8784195499985191214544F_{n+105}^7 + F_{n+120}^7 = 0$
$F_n^7 - 255044402921529369959903F_{n+16}^7 + 13354481080420115909864656333461254479873F_{n+32}^7 - 143560099001076479777315072407974219506965162005506F_{n+48}^7 + 316837073447741683750195761983479926838830019978971070F_{n+64}^7 - 143560099001076479777315072407974219506965162005506F_{n+80}^7 + 13354481080420115909864656333461254479873F_{n+96}^7 - 255044402921529369959903F_{n+112}^7 + F_{n+128}^7 = 0$

$F_{n+d}^8$
$F_n^8 - 34F_{n+1}^8 - 714F_{n+2}^8 + 4641F_{n+3}^8 + 12376F_{n+4}^8 - 12376F_{n+5}^8 - 4641F_{n+6}^8 + 714F_{n+7}^8 + 34F_{n+8}^8 - F_{n+9}^8 = 0$
$F_n^8 - 2584F_{n+2}^8 + 850136F_{n+4}^8 - 40062659F_{n+6}^8 + 274715376F_{n+8}^8 - 274715376F_{n+10}^8 + 40062659F_{n+12}^8 - 850136F_{n+14}^8 + 2584F_{n+16}^8 - F_{n+18}^8 = 0$
$F_n^8 - 98209F_{n+3}^8 - 569219364F_{n+6}^8 + 183255151716F_{n+9}^8 + 3288411889126F_{n+12}^8 - 3288411889126F_{n+15}^8 - 183255151716F_{n+18}^8 + 569219364F_{n+21}^8 + 98209F_{n+24}^8 - F_{n+27}^8 = 0$
$F_n^8 - 4976784F_{n+4}^8 + 516236827536F_{n+8}^8 - 1139345433305859F_{n+12}^8 + 53524993973177376F_{n+16}^8 - 53524993973177376F_{n+20}^8 + 1139345433305859F_{n+24}^8 - 516236827536F_{n+28}^8 + 4976784F_{n+32}^8 - F_{n+36}^8 = 0$
$F_n^8 - 226980634F_{n+5}^8 - 422324934213714F_{n+10}^8 + 6388505818171063041F_{n+15}^8 + 785734276563348306376F_{n+20}^8 - 785734276563348306376F_{n+25}^8 - 6388505818171063041F_{n+30}^8 + 422324934213714F_{n+35}^8 + 226980634F_{n+40}^8 - F_{n+45}^8 = 0$
$F_n^8 - 10783446409F_{n+6}^8 + 360011871566096036F_{n+12}^8 - 37326751982303806870484F_{n+18}^8 + 12019098216711818657616126F_{n+24}^8 - 12019098216711818657616126F_{n+30}^8 + 37326751982303806870484F_{n+36}^8 - 360011871566096036F_{n+42}^8 + 10783446409F_{n+48}^8 - F_{n+54}^8 = 0$
$F_n^8 - 504420793834F_{n+7}^8 - 302186099427257754114F_{n+14}^8 + 214747644640791586761179841F_{n+21}^8 + 181032009690022846439690310376F_{n+28}^8 - 181032009690022846439690310376F_{n+35}^8 - 214747644640791586761179841F_{n+42}^8 + 302186099427257754114F_{n+49}^8 + 504420793834F_{n+56}^8 - F_{n+63}^8 = 0$
$F_n^8 - 23735905327584F_{n+8}^8 + 255160016908522421831136F_{n+16}^8 - 1242845402994387314669667142659F_{n+24}^8 + 2742959241270686661932088292925376F_{n+32}^8 - 2742959241270686661932088292925376F_{n+40}^8 + 1242845402994387314669667142659F_{n+48}^8 - 255160016908522421831136F_{n+56}^8 + 23735905327584F_{n+64}^8 - F_{n+72}^8 = 0$
$F_n^8 - 1114384187445409F_{n+9}^8 - 214964887386601338148412964F_{n+18}^8 + 7176663385462718225281892469660516F_{n+27}^8 + 41466759799136541000396977306193361126F_{n+36}^8 - 41466759799136541000396977306193361126F_{n+45}^8 - 7176663385462718225281892469660516F_{n+54}^8 + 214964887386601338148412964F_{n+63}^8 + 1114384187445409F_{n+72}^8 - F_{n+81}^8 = 0$
$F_n^8 - 52364858079469384F_{n+10}^8 + 181258485831928724281122582536F_{n+20}^8 - 41476677298816604572894529562705419459F_{n+30}^8 + 627417694757301686158692996113929684631376F_{n+40}^8 - 627417694757301686158692996113929684631376F_{n+50}^8 + 41476677298816604572894529562705419459F_{n+60}^8 - 181258485831928724281122582536F_{n+70}^8 + 52364858079469384F_{n+80}^8 - F_{n+90}^8 = 0$
$F_n^8 - 2459808941961294034F_{n+11}^8 - 152786728822046847688488121794714F_{n+22}^8 + 239630339865852346700641729099982595340641F_{n+33}^8 + 9490080343656537672562007423311281856775832376F_{n+44}^8 - 9490080343656537672562007423311281856775832376F_{n+55}^8 - 239630339865852346700641729099982595340641F_{n+66}^8 - 152786728822046847688488121794714F_{n+77}^8 + 2459808941961294034F_{n+88}^8 - F_{n+99}^8 = 0$
$F_n^8 - 115562692712642803209F_{n+12}^8 + 128803525633315008690485970854361636F_{n+24}^8 - 1384632377720565480423791464256906150890483284F_{n+36}^8 + 143561454173469062999070755867509579085161007424126F_{n+48}^8 - 143561454173469062999070755867509579085161007424126F_{n+60}^8 + 1384632377720565480423791464256906150890483284F_{n+72}^8 - 128803525633315008690485970854361636F_{n+84}^8 + 115562692712642803209F_{n+96}^8 - F_{n+108}^8 = 0$
$F_n^8 - 5428914300613722718834F_{n+13}^8 - 10857972046360532138962388515984517114F_{n+26}^8 + 800029902058251664851696050417579962914459119841F_{n+39}^8 + 2171625161986224787599558709512662164285720734660480376F_{n+52}^8 - 2171625161986224787599558709512662164285720734660480376F_{n+65}^8 - 800029902058251664851696050417579962914459119841F_{n+78}^8 + 10857972046360532138962388515984517114F_{n+91}^8 + 5428914300613722718834F_{n+104}^8 - F_{n+117}^8 = 0$
$F_n^8 - 255044709450977247927784F_{n+14}^8 + 91533085042189952824295402356161980346536F_{n+28}^8 - 46225961592709747200796970733124167178513410102961859F_{n+42}^8 + 32850340927909356006719045301925664674140004399431285407376F_{n+56}^8 - 32850340927909356006719045301925664674140004399431285407376F_{n+70}^8 + 46225961592709747200796970733124167178513410102961859F_{n+84}^8 - 91533085042189952824295402356161980346536F_{n+98}^8 + 255044709450977247927784F_{n+112}^8 - F_{n+126}^8 = 0$

$F_{n+d}^9$
$F_n^9 + 55F_{n+1}^9 - 1870F_{n+2}^9 - 19635F_{n+3}^9 + 85085F_{n+4}^9 + 136136F_{n+5}^9 - 85085F_{n+6}^9 - 19635F_{n+7}^9 + 1870F_{n+8}^9 + 55F_{n+9}^9 - F_{n+10}^9 = 0$
$F_n^9 - 6765F_{n+2}^9 + 5826920F_{n+4}^9 - 718896255F_{n+6}^9 + 12905899435F_{n+8}^9 - 33789991248F_{n+10}^9 + 12905899435F_{n+12}^9 - 718896255F_{n+14}^9 + 5826920F_{n+16}^9 - 6765F_{n+18}^9 + F_{n+20}^9 = 0$
$F_n^9 + 416020F_{n+3}^9 - 10214227045F_{n+6}^9 - 13929802341840F_{n+9}^9 + 1058858447456810F_{n+12}^9 + 4485393816767864F_{n+15}^9 - 1058858447456810F_{n+18}^9 - 13929802341840F_{n+21}^9 + 10214227045F_{n+24}^9 + 416020F_{n+27}^9 - F_{n+30}^9 = 0$
$F_n^9 - 34111385F_{n+4}^9 + 24252142155120F_{n+8}^9 - 366865691151231195F_{n+12}^9 + 118129637457410270835F_{n+16}^9 - 809672583832254166752F_{n+20}^9 + 118129637457410270835F_{n+24}^9 - 366865691151231195F_{n+28}^9 + 24252142155120F_{n+32}^9 - 34111385F_{n+36}^9 + F_{n+40}^9 = 0$
$F_n^9 + 2517253805F_{n+5}^9 - 51942533145255670F_{n+10}^9 - 8713926619638084013785F_{n+15}^9 + 11885802349634698138102085F_{n+20}^9 + 131815567970543875225944136F_{n+25}^9 - 11885802349634698138102085F_{n+30}^9 - 8713926619638084013785F_{n+35}^9 + 51942533145255670F_{n+40}^9 + 2517253805F_{n+45}^9 - F_{n+50}^9 = 0$
$F_n^9 - 193501094490F_{n+6}^9 + 115922704584208899245F_{n+12}^9 - 215673966493600288985914680F_{n+18}^9 + 1246164141189193192051800496210F_{n+24}^9 - 22361508193995905188857487190748F_{n+30}^9 + 1246164141189193192051800496210F_{n+36}^9 - 215673966493600288985914680F_{n+42}^9 + 115922704584208899245F_{n+48}^9 - 193501094490F_{n+54}^9 + F_{n+60}^9 = 0$
$F_n^9 + 14645576208395F_{n+7}^9 - 254742523351549990173670F_{n+14}^9 - 5256163359001819595735486143215F_{n+21}^9 + 128649854589930923589365400013477685F_{n+28}^9 + 3735276722584557306050429259972187864F_{n+35}^9 - 128649854589930923589365400013477685F_{n+42}^9 - 5256163359001819595735486143215F_{n+49}^9 + 254742523351549990173670F_{n+56}^9 + 14645576208395F_{n+63}^9 - F_{n+70}^9 = 0$
$F_n^9 - 1115082302307985F_{n+8}^9 + 563138041703121991929445920F_{n+16}^9 - 128860697061276976160167329820078995F_{n+24}^9 + 13360534791465037177285784921463597990435F_{n+32}^9 - 627660739698829787480478101092155290098752F_{n+40}^9 + 13360534791465037177285784921463597990435F_{n+48}^9 - 128860697061276976160167329820078995F_{n+56}^9 + 563138041703121991929445920F_{n+64}^9 - 1115082302307985F_{n+72}^9 + F_{n+80}^9 = 0$
$F_n^9 + 84707858657965180F_{n+9}^9 - 1242067082115751063231503590245F_{n+18}^9 - 3152019265565107854853838899590187739760F_{n+27}^9 + 1384379469520435535735770294033068324214247210F_{n+36}^9 + 105231052050324015078367493501950583135650396136F_{n+45}^9 - 1384379469520435535735770294033068324214247210F_{n+54}^9 + 3152019265565107854853838899590187739760F_{n+63}^9 + 1242067082115751063231503590245F_{n+72}^9 + 84707858657965180F_{n+81}^9 - F_{n+90}^9 = 0$
$F_n^9 - 6440451785077489365F_{n+10}^9 + 2741897103197138094606045870756920F_{n+20}^9 - 77167275161071401854647437339211746243249255F_{n+30}^9 + 143569561102581547072366134467294027903413997235835F_{n+40}^9 - 17657888706251270056881881882979635425646693403787248F_{n+50}^9 + 143569561102581547072366134467294027903413997235835F_{n+60}^9 - 77167275161071401854647437339211746243249255F_{n+70}^9 + 2741897103197138094606045870756920F_{n+80}^9 - 6440451785077489365F_{n+90}^9 + F_{n+100}^9 = 0$
$F_n^9 + 489514339987133086945F_{n+11}^9 - 6050812817681562848298090695925787870F_{n+22}^9 - 1888573676029426456734499499566548023110629877365F_{n+33}^9 + 14884219301228651309500789188014143506034403367451951085F_{n+44}^9 + 2962034434127745716324847643368349016755001208819371723864F_{n+55}^9 - 14884219301228651309500789188014143506034403367451951085F_{n+66}^9 - 1888573676029426456734499499566548023110629877365F_{n+77}^9 + 6050812817681562848298090695925787870F_{n+88}^9 + 489514339987133086945F_{n+99}^9 - F_{n+110}^9 = 0$
$F_n^9 - 37210828159659490561610F_{n+12}^9 + 13354607143471072739367631735610646336045F_{n+24}^9 - 46226342396531554289078518423167384011078741653344120F_{n+36}^9 + 1543279476736760377220172744277629097360173851824212087897810F_{n+48}^9 - 496931198669604930127609307414271650002963659438520111660656252F_{n+60}^9 + 1543279476736760377220172744277629097360173851824212087897810F_{n+72}^9 - 46226342396531554289078518423167384011078741653344120F_{n+84}^9 + 13354607143471072739367631735610646336045F_{n+96}^9 - 37210828159659490561610F_{n+108}^9 + F_{n+120}^9 = 0$



$F_{n+d}^{10}$
$F_n^{10} - 89F_{n+1}^{10} - 4895F_{n+2}^{10} + 83215F_{n+3}^{10} + 582505F_{n+4}^{10} - 1514513F_{n+5}^{10} - 1514513F_{n+6}^{10} + 582505F_{n+7}^{10} + 83215F_{n+8}^{10} - 4895F_{n+9}^{10} - 89F_{n+10}^{10} + F_{n+11}^{10} = 0$
$F_n^{10} - 17711F_{n+2}^{10} + 39938305F_{n+4}^{10} - 12900072515F_{n+6}^{10} + 606303408205F_{n+8}^{10} - 4155934270787F_{n+10}^{10} + 4155934270787F_{n+12}^{10} - 606303408205F_{n+14}^{10} + 12900072515F_{n+16}^{10} - 39938305F_{n+18}^{10} + 17711F_{n+20}^{10} - F_{n+22}^{10} = 0$
$F_n^{10} - 1762289F_{n+3}^{10} - 183286867445F_{n+6}^{10} + 1058848233229765F_{n+9}^{10} + 340949131099984330F_{n+12}^{10} - 6118080637738407338F_{n+15}^{10} - 6118080637738407338F_{n+18}^{10} + 340949131099984330F_{n+21}^{10} + 1058848233229765F_{n+24}^{10} - 183286867445F_{n+27}^{10} - 1762289F_{n+30}^{10} + F_{n+33}^{10} = 0$
$F_n^{10} - 233802911F_{n+3}^{10} + 1139334444463105F_{n+8}^{10} - 118129613205268115715F_{n+12}^{10} + 260712056344026731383005F_{n+16}^{10} - 12247917123244860240585987F_{n+20}^{10} + 12247917123244860240585987F_{n+24}^{10} - 260712056344026731383005F_{n+28}^{10} + 118129613205268115715F_{n+32}^{10} - 1139334444463105F_{n+36}^{10} + 233802911F_{n+40}^{10} - F_{n+44}^{10} = 0$
$F_n^{10} - 27916772489F_{n+5}^{10} - 6388509251932233695F_{n+10}^{10} + 11885802297692164992846415F_{n+15}^{10} + 179796531357189379846787719705F_{n+20}^{10} - 22113511499098533834161133568913F_{n+25}^{10} - 22113511499098533834161133568913F_{n+30}^{10} + 179796531357189379846787719705F_{n+35}^{10} + 11885802297692164992846415F_{n+40}^{10} - 6388509251932233695F_{n+45}^{10} - 27916772489F_{n+50}^{10} + F_{n+55}^{10} = 0$
$F_n^{10} - 3472236254411F_{n+6}^{10} + 37326750864243699460855F_{n+12}^{10} - 1246164141073270487467591596965F_{n+18}^{10} + 129204790474758830681614831956525130F_{n+24}^{10} - 41603541271901011840594247688561526862F_{n+30}^{10} + 41603541271901011840594247688561526862F_{n+36}^{10} - 129204790474758830681614831956525130F_{n+42}^{10} + 1246164141073270487467591596965F_{n+48}^{10} - 37326750864243699460855F_{n+54}^{10} + 3472236254411F_{n+60}^{10} - F_{n+66}^{10} = 0$
$F_n^{10} - 425226130837289F_{n+7}^{10} - 214747644999257214458649695F_{n+14}^{10} + 128649854589676181066013850023304015F_{n+21}^{10} + 91424633214589609046019544477510928347705F_{n+28}^{10} - 77070857348224049851691987637237312002301713F_{n+35}^{10} - 77070857348224049851691987637237312002301713F_{n+42}^{10} + 91424633214589609046019544477510928347705F_{n+49}^{10} - 128649854589676181066013850023304015F_{n+56}^{10} - 214747644999257214458649695F_{n+63}^{10} - 425226130837289F_{n+70}^{10} + F_{n+77}^{10} = 0$
$F_n^{10} - 52385132303147711F_{n+8}^{10} + 1242845402878773327665865314305F_{n+16}^{10} - 13360534791464474039244081799471668544515F_{n+24}^{10} + 65077120807400358980629918100711178315045254205F_{n+32}^{10} - 143625176135238363959674496113540090498440241910787F_{n+40}^{10} + 143625176135238363959674496113540090498440241910787F_{n+48}^{10} - 65077120807400358980629918100711178315045254205F_{n+56}^{10} + 13360534791464474039244081799471668544515F_{n+64}^{10} - 1242845402878773327665865314305F_{n+72}^{10} + 52385132303147711F_{n+80}^{10} - F_{n+88}^{10} = 0$
$F_n^{10} - 6438911642192799089F_{n+9}^{10} - 7176663385499922256750289596022645F_{n+18}^{10} + 1384379469520434293668688178282005092710656965F_{n+27}^{10} + 46217898984950103656599969402011015545581427181789130F_{n+36}^{10} - 267047012336097363592222281914017904794195856754564884138F_{n+45}^{10} - 267047012336097363592222281914017904794195856754564884138F_{n+54}^{10} + 46217898984950103656599969402011015545581427181789130F_{n+63}^{10} + 1384379469520434293668688178282005092710656965F_{n+72}^{10} - 7176663385499922256750289596022645F_{n+81}^{10} - 6438911642192799089F_{n+90}^{10} + F_{n+99}^{10} = 0$
$F_n^{10} - 792123204706451722511F_{n+10}^{10} + 41476677298804622125176931605817346305F_{n+20}^{10} - 143569561102581544330469031270155933297368126478915F_{n+30}^{10} + 32852466622193584490820036518991672902507087675416266612205F_{n+40}^{10} - 496959260422145611285458474668145232186391441675876493948363587F_{n+50}^{10} + 496959260422145611285458474668145232186391441675876493948363587F_{n+60}^{10} - 32852466622193584490820036518991672902507087675416266612205F_{n+70}^{10} + 143569561102581544330469031270155933297368126478915F_{n+80}^{10} - 41476677298804622125176931605817346305F_{n+90}^{10} + 792123204706451722511F_{n+100}^{10} - F_{n+110}^{10} = 0$

$F_{n+d}^{11}$	
$F_n^{11} + 144F_{n+1}^{11} - 12816F_{n+2}^{11} - 352440F_{n+3}^{11} + 3994320F_{n+4}^{11} + 16776144F_{n+5}^{11} - 27261234F_{n+6}^{11} - 16776144F_{n+7}^{11} + 3994320F_{n+8}^{11} + 352440F_{n+9}^{11} - 12816F_{n+10}^{11} - 144F_{n+11}^{11} + F_{n+12}^{11} = 0$	
$F_n^{11} - 46368F_{n+2}^{11} + 273741216F_{n+4}^{11} - 231482415780F_{n+6}^{11} + 28483360113120F_{n+8}^{11} - 511146844211808F_{n+10}^{11} + 1338210835193414F_{n+12}^{11} - 511146844211808F_{n+14}^{11} + 28483360113120F_{n+16}^{11} - 231482415780F_{n+18}^{11} + 273741216F_{n+20}^{11} - 46368F_{n+22}^{11} + F_{n+24}^{11} = 0$	
$F_n^{11} + 7465176F_{n+3}^{11} - 3288949386966F_{n+6}^{11} - 80486395527387960F_{n+9}^{11} + 109784561365961724495F_{n+12}^{11} + 8345066461339202035056F_{n+15}^{11} - 35350269924852517598964F_{n+18}^{11} - 8345066461339202035056F_{n+21}^{11} + 109784561365961724495F_{n+24}^{11} + 80486395527387960F_{n+27}^{11} - 3288949386966F_{n+30}^{11} - 7465176F_{n+33}^{11} + F_{n+36}^{11} = 0$	
$F_n^{11} - 1602508992F_{n+4}^{11} + 53524466747610816F_{n+8}^{11} - 38037368586405216140420F_{n+12}^{11} + 575391390221653790894176320F_{n+16}^{11} - 185274241514019282718241289792F_{n+20}^{11} + 1269888543172273599464436304134F_{n+24}^{11} - 185274241514019282718241289792F_{n+28}^{11} + 575391390221653790894176320F_{n+32}^{11} - 38037368586405216140420F_{n+36}^{11} + 53524466747610816F_{n+40}^{11} - 1602508992F_{n+44}^{11} + F_{n+48}^{11} = 0$	
$F_n^{11} + 309601751184F_{n+5}^{11} - 785734695454519488816F_{n+10}^{11} - 16212243047978732685809270040F_{n+15}^{11} + 2719782117954401451250192843131120F_{n+20}^{11} + 3709784802732075988596630165796344144F_{n+25}^{11} - 41142143917049824001389120682695498674F_{n+30}^{11} - 3709784802732075988596630165796344144F_{n+35}^{11} + 2719782117954401451250192843131120F_{n+40}^{11} + 16212243047978732685809270040F_{n+45}^{11} - 785734695454519488816F_{n+50}^{11} - 309601751184F_{n+55}^{11} + F_{n+60}^{11} = 0$	
$F_n^{11} - 62306751484908F_{n+6}^{11} + 12019097855581887017496066F_{n+12}^{11} - 7200336191447390382987648762443580F_{n+18}^{11} + 13396211084757780941657918519448846931695F_{n+24}^{11} - 77403305329266927434881887224484775102421208F_{n+30}^{11} + 1388945957561053956383578006660474748638445084F_{n+36}^{11} - 77403305329266927434881887224484775102421208F_{n+42}^{11} + 13396211084757780941657918519448846931695F_{n+48}^{11} - 7200336191447390382987648762443580F_{n+54}^{11} + 12019097855581887017496066F_{n+60}^{11} - 62306751484908F_{n+66}^{11} + F_{n+72}^{11} = 0$	
$F_n^{11} + 12346203370489776F_{n+7}^{11} - 181032009991850480238651519216F_{n+14}^{11} - 3148833846193077566773574574260299005960F_{n+21}^{11} + 64970641319919812045136975043243694847488211120F_{n+28}^{11} + 1590221419600816781409341756502466989094584280483056F_{n+35}^{11} - 46171191341985521714353340079759159773633233744152114F_{n+42}^{11} - 1590221419600816781409341756502466989094584280483056F_{n+49}^{11} + 64970641319919812045136975043243694847488211120F_{n+56}^{11} + 3148833846193077566773574574260299005960F_{n+63}^{11} - 181032009991850480238651519216F_{n+70}^{11} - 12346203370489776F_{n+77}^{11} + F_{n+84}^{11} = 0$	
$F_n^{11} - 2460986135945634432F_{n+8}^{11} + 2742959241015411031036572819225216F_{n+16}^{11} - 1385246968119758900275627912973769290514633220F_{n+24}^{11} + 316980698653350255804932830217055496680503759640117120F_{n+32}^{11} - 32865192794719422419048088288205204964485639172562998712192F_{n+40}^{11} + 1543964485093510085815930970297511616486232208420267599275014F_{n+48}^{11} - 32865192794719422419048088288205204964485639172562998712192F_{n+56}^{11} + 316980698653350255804932830217055496680503759640117120F_{n+64}^{11} - 1385246968119758900275627912973769290514633220F_{n+72}^{11} + 2742959241015411031036572819225216F_{n+80}^{11} - 2460986135945634432F_{n+88}^{11} + F_{n+96}^{11} = 0$	
$F_n^{11} + 489441992665310695944F_{n+9}^{11} - 41466759799351468683752110054315252566F_{n+18}^{11} - 608025000534404842782027630509023518930622911430440F_{n+27}^{11} + 1542997591060071582125351619243215452407441518421402658927695F_{n+36}^{11} + 677690713987460847398408622810517564182973797359870977223414328144F_{n+45}^{11} - 51513409702861122483544478491216556902402879442734689072968571511284F_{n+54}^{11} - 677690713987460847398408622810517564182973797359870977223414328144F_{n+63}^{11} + 1542997591060071582125351619243215452407441518421402658927695F_{n+72}^{11} + 608025000534404842782027630509023518930622911430440F_{n+81}^{11} - 41466759799351468683752110054315252566F_{n+90}^{11} - 489441992665310695944F_{n+99}^{11} + F_{n+108}^{11} = 0$	

$F_n^{12}$	$F_n^{12} - 233F_{n+1}^{12} - 33552F_{n+2}^{12} + 1493064F_{n+3}^{12} + 27372840F_{n+4}^{12} - 186135312F_{n+5}^{12} - 488605194F_{n+6}^{12} + 488605194F_{n+7}^{12} + 186135312F_{n+8}^{12} - 27372840F_{n+9}^{12} - 1493064F_{n+10}^{12} + 33552F_{n+11}^{12} + 233F_{n+12}^{12} - F_{n+13}^{12} = 0$
$F_n^{12}$	$F_n^{12} - 121393F_{n+2}^{12} + 1876250208F_{n+4}^{12} - 4153783429236F_{n+6}^{12} + 1338111661846740F_{n+8}^{12} - 62866918803854112F_{n+10}^{12} + 430900339301416726F_{n+12}^{12} - 430900339301416726F_{n+14}^{12} + 62866918803854112F_{n+16}^{12} - 1338111661846740F_{n+18}^{12} + 4153783429236F_{n+20}^{12} - 1876250208F_{n+22}^{12} + 121393F_{n+24}^{12} - F_{n+26}^{12} = 0$
$F_n^{12}$	$F_n^{12} - 31622993F_{n+3}^{12} - 59017802097942F_{n+6}^{12} + 6118024908316477014F_{n+9}^{12} + 35350287810525288435615F_{n+12}^{12} - 11382676772406157547453487F_{n+15}^{12} - 204253853166768077848422324F_{n+18}^{12} + 204253853166768077848422324F_{n+21}^{12} + 11382676772406157547453487F_{n+24}^{12} - 35350287810525288435615F_{n+27}^{12} - 6118024908316477014F_{n+30}^{12} + 59017802097942F_{n+33}^{12} + 31622993F_{n+36}^{12} - F_{n+39}^{12} = 0$
$F_n^{12}$	$F_n^{12} - 10983760033F_{n+4}^{12} + 2514510602693245248F_{n+8}^{12} - 12247914555209274562902436F_{n+12}^{12} + 1269888537507134711811160218340F_{n+16}^{12} - 2802643439134770696047181018213312F_{n+20}^{12} + 131664583921200466272770851376018406F_{n+24}^{12} - 131664583921200466272770851376018406F_{n+28}^{12} + 2802643439134770696047181018213312F_{n+32}^{12} - 1269888537507134711811160218340F_{n+36}^{12} + 12247914555209274562902436F_{n+40}^{12} - 2514510602693245248F_{n+44}^{12} + 10983760033F_{n+48}^{12} - F_{n+52}^{12} = 0$
$F_n^{12}$	$F_n^{12} - 3433536035513F_{n+5}^{12} - 96638979031653964890672F_{n+10}^{12} + 22113511403245289075636753953464F_{n+15}^{12} + 41142143918499699389483778039324498840F_{n+20}^{12} - 622357208313249323307860104770486616356912F_{n+25}^{12} - 76544876473361070146906000528699601970691034F_{n+30}^{12} + 76544876473361070146906000528699601970691034F_{n+35}^{12} - 622357208313249323307860104770486616356912F_{n+40}^{12} - 41142143918499699389483778039324498840F_{n+45}^{12} - 22113511403245289075636753953464F_{n+50}^{12} + 96638979031653964890672F_{n+55}^{12} + 3433536035513F_{n+60}^{12} - F_{n+65}^{12} = 0$
$F_n^{12}$	$F_n^{12} - 1118049290473933F_{n+6}^{12} + 3870112182746503375934272398F_{n+12}^{12} - 41603541268018880559632150554043662686F_{n+18}^{12} + 1388945957560651453118254804002744759314936715F_{n+24}^{12} - 144008694758448856418717144546612151348283482711687F_{n+30}^{12} + 46370352475935777076744970495104817824540748565851956F_{n+42}^{12} + 144008694758448856418717144546612151348283482711687F_{n+48}^{12} - 1388945957560651453118254804002744759314936715F_{n+54}^{12} + 41603541268018880559632150554043662686F_{n+60}^{12} - 3870112182746503375934272398F_{n+66}^{12} + 1118049290473933F_{n+72}^{12} - F_{n+78}^{12} = 0$
$F_n^{12}$	$F_n^{12} - 358465123875040793F_{n+7}^{12} - 152609769675484955583968772049392F_{n+14}^{12} + 77070857348071621114026192346034154624018264F_{n+21}^{12} + 46171191341985630037225866079762337468548229380797240F_{n+28}^{12} - 32811418613543014316887182168499646843767654316011955504112F_{n+35}^{12} - 27659986968957230025973781769733565522285897850338464731708474F_{n+42}^{12} + 27659986968957230025973781769733565522285897850338464731708474F_{n+49}^{12} + 32811418613543014316887182168499646843767654316011955504112F_{n+56}^{12} - 46171191341985630037225866079762337468548229380797240F_{n+63}^{12} - 77070857348071621114026192346034154624018264F_{n+70}^{12} + 152609769675484955583968772049392F_{n+77}^{12} + 358465123875040793F_{n+84}^{12} - F_{n+91}^{12} = 0$
$F_n^{12}$	$F_n^{12} - 115613963257141670593F_{n+8}^{12} + 6053709802075609266724388546164737408F_{n+16}^{12} - 143625176135232307506913179233702318164798836119236F_{n+24}^{12} + 1543964485093510056315882260906516330324519758281136373660740F_{n+32}^{12} - 7520414780323951340202568947866227665054399284681066959848309674112F_{n+40}^{12} + 16597552012646041582852238216195674496923210677657804668652153589293126F_{n+48}^{12} - 16597552012646041582852238216195674496923210677657804668652153589293126F_{n+56}^{12} + 7520414780323951340202568947866227665054399284681066959848309674112F_{n+64}^{12} - 1543964485093510056315882260906516330324519758281136373660740F_{n+72}^{12} + 143625176135232307506913179233702318164798836119236F_{n+80}^{12} - 6053709802075609266724388546164737408F_{n+88}^{12} + 115613963257141670593F_{n+96}^{12} - F_{n+104}^{12} = 0$
$F_n^{12}$	$F_n^{12} - 37204030354205805690833F_{n+9}^{12} - 239594930943989400554797435143543933303702F_{n+18}^{12} + 267047012336097124038758097723753853793126221926798425814F_{n+27}^{12} + 51513409702861122491542038207487710688747226480068920272134137373215F_{n+36}^{12} - 17197897097115532379520354880040724835293298016151134901698223847563799209936944645068882261195376484861135607864857798947172336277293714374520273752244F_{n+54}^{12} + 993694464506888226119537648486113560786485779894717233627729371719789709711553237952035488004072483529329801615113490169822384756379920687F_{n+72}^{12} - 51513409702861122491542038207487710688747226480068920272134137373267047012336097124038758097723753853793126221926798425814F_{n+90}^{12} + 239594930943989400554797435143543933303702F_{n+99}^{12} + 37204030354205805690833F_{n+108}^{12} - F_{n+117}^{12} = 0$

$P_{1,d}$
$P_{1,1}(x) = 1 + x - x^2$
$P_{1,2}(x) = 1 - 3x^2 + x^4$
$P_{1,3}(x) = 1 + 4x^3 - x^6$
$P_{1,4}(x) = 1 - 7x^4 + x^8$
$P_{1,5}(x) = 1 + 11x^5 - x^{10}$
$P_{1,6}(x) = 1 - 18x^6 + x^{12}$
$P_{1,7}(x) = 1 + 29x^7 - x^{14}$
$P_{1,8}(x) = 1 - 47x^8 + x^{16}$
$P_{1,9}(x) = 1 + 76x^9 - x^{18}$
$P_{1,10}(x) = 1 - 123x^{10} + x^{20}$
$P_{1,11}(x) = 1 + 199x^{11} - x^{22}$
$P_{1,12}(x) = 1 - 322x^{12} + x^{24}$
$P_{1,13}(x) = 1 + 521x^{13} - x^{26}$
$P_{1,14}(x) = 1 - 843x^{14} + x^{28}$
$P_{1,15}(x) = 1 + 1364x^{15} - x^{30}$
$P_{1,16}(x) = 1 - 2207x^{16} + x^{32}$
$P_{1,17}(x) = 1 + 3571x^{17} - x^{34}$
$P_{1,18}(x) = 1 - 5778x^{18} + x^{36}$
$P_{1,19}(x) = 1 + 9349x^{19} - x^{38}$
$P_{1,20}(x) = 1 - 15127x^{20} + x^{40}$
$P_{1,21}(x) = 1 + 24476x^{21} - x^{42}$
$P_{1,22}(x) = 1 - 39603x^{22} + x^{44}$
$P_{1,23}(x) = 1 + 64079x^{23} - x^{46}$
$P_{1,24}(x) = 1 - 103682x^{24} + x^{48}$
$P_{1,25}(x) = 1 + 167761x^{25} - x^{50}$
$P_{1,26}(x) = 1 - 271443x^{26} + x^{52}$
$P_{1,27}(x) = 1 + 439204x^{27} - x^{54}$
$P_{1,28}(x) = 1 - 710647x^{28} + x^{56}$
$P_{1,29}(x) = 1 + 1149851x^{29} - x^{58}$
$P_{1,30}(x) = 1 - 1860498x^{30} + x^{60}$
$P_{1,31}(x) = 1 + 3010349x^{31} - x^{62}$
$P_{1,32}(x) = 1 - 4870847x^{32} + x^{64}$
$P_{1,33}(x) = 1 + 7881196x^{33} - x^{66}$
$P_{1,34}(x) = 1 - 12752043x^{34} + x^{68}$
$P_{1,35}(x) = 1 + 20633239x^{35} - x^{70}$
$P_{1,36}(x) = 1 - 33385282x^{36} + x^{72}$
$P_{1,37}(x) = 1 + 54018521x^{37} - x^{74}$
$P_{1,38}(x) = 1 - 87403803x^{38} + x^{76}$
$P_{1,39}(x) = 1 + 141422324x^{39} - x^{78}$
$P_{1,40}(x) = 1 - 228826127x^{40} + x^{80}$
$P_{1,41}(x) = 1 + 370248451x^{41} - x^{82}$

$P_{2,d}$
$P_{2,1}(x) = 1 - 2x - 2x^2 + x^3$
$P_{2,2}(x) = 1 - 8x^2 + 8x^4 - x^6$
$P_{2,3}(x) = 1 - 17x^3 - 17x^6 + x^9$
$P_{2,4}(x) = 1 - 48x^4 + 48x^8 - x^{12}$
$P_{2,5}(x) = 1 - 122x^5 - 122x^{10} + x^{15}$
$P_{2,6}(x) = 1 - 323x^6 + 323x^{12} - x^{18}$
$P_{2,7}(x) = 1 - 842x^7 - 842x^{14} + x^{21}$
$P_{2,8}(x) = 1 - 2208x^8 + 2208x^{16} - x^{24}$
$P_{2,9}(x) = 1 - 5777x^9 - 5777x^{18} + x^{27}$
$P_{2,10}(x) = 1 - 15128x^{10} + 15128x^{20} - x^{30}$
$P_{2,11}(x) = 1 - 39602x^{11} - 39602x^{22} + x^{33}$
$P_{2,12}(x) = 1 - 103683x^{12} + 103683x^{24} - x^{36}$
$P_{2,13}(x) = 1 - 271442x^{13} - 271442x^{26} + x^{39}$
$P_{2,14}(x) = 1 - 710648x^{14} + 710648x^{28} - x^{42}$
$P_{2,15}(x) = 1 - 1860497x^{15} - 1860497x^{30} + x^{45}$
$P_{2,16}(x) = 1 - 4870848x^{16} + 4870848x^{32} - x^{48}$
$P_{2,17}(x) = 1 - 12752042x^{17} - 12752042x^{34} + x^{51}$
$P_{2,18}(x) = 1 - 33385283x^{18} + 33385283x^{36} - x^{54}$
$P_{2,19}(x) = 1 - 87403802x^{19} - 87403802x^{38} + x^{57}$
$P_{2,20}(x) = 1 - 228826128x^{20} + 228826128x^{40} - x^{60}$
$P_{2,21}(x) = 1 - 599074577x^{21} - 599074577x^{42} + x^{63}$
$P_{2,22}(x) = 1 - 1568397608x^{22} + 1568397608x^{44} - x^{66}$
$P_{2,23}(x) = 1 - 4106118242x^{23} - 4106118242x^{46} + x^{69}$
$P_{2,24}(x) = 1 - 10749957123x^{24} + 10749957123x^{48} - x^{72}$
$P_{2,25}(x) = 1 - 28143753122x^{25} - 28143753122x^{50} + x^{75}$
$P_{2,26}(x) = 1 - 73681302248x^{26} + 73681302248x^{52} - x^{78}$
$P_{2,27}(x) = 1 - 192900153617x^{27} - 192900153617x^{54} + x^{81}$
$P_{2,28}(x) = 1 - 505019158608x^{28} + 505019158608x^{56} - x^{84}$
$P_{2,29}(x) = 1 - 1322157322202x^{29} - 1322157322202x^{58} + x^{87}$
$P_{2,30}(x) = 1 - 3461452808003x^{30} + 3461452808003x^{60} - x^{90}$
$P_{2,31}(x) = 1 - 9062201101802x^{31} - 9062201101802x^{62} + x^{93}$
$P_{2,32}(x) = 1 - 23725150497408x^{32} + 23725150497408x^{64} - x^{96}$
$P_{2,33}(x) = 1 - 62113250390417x^{33} - 62113250390417x^{66} + x^{99}$
$P_{2,34}(x) = 1 - 162614600673848x^{34} + 162614600673848x^{68} - x^{102}$
$P_{2,35}(x) = 1 - 425730551631122x^{35} - 425730551631122x^{70} + x^{105}$
$P_{2,36}(x) = 1 - 1114577054219523x^{36} + 1114577054219523x^{72} - x^{108}$
$P_{2,37}(x) = 1 - 2918000611027442x^{37} - 2918000611027442x^{74} + x^{111}$
$P_{2,38}(x) = 1 - 7639424778862808x^{38} + 7639424778862808x^{76} - x^{114}$
$P_{2,39}(x) = 1 - 20000273725560977x^{39} - 20000273725560977x^{78} + x^{117}$
$P_{2,40}(x) = 1 - 52361396397820128x^{40} + 52361396397820128x^{80} - x^{120}$
$P_{2,41}(x) = 1 - 137083915467899402x^{41} - 137083915467899402x^{82} + x^{123}$

$P_{3,d}$
$P_{3,1}(x) = 1 + 3x - 6x^2 - 3x^3 + x^4$
$P_{3,2}(x) = 1 - 21x^2 + 56x^4 - 21x^6 + x^8$
$P_{3,3}(x) = 1 + 72x^3 - 306x^6 - 72x^9 + x^{12}$
$P_{3,4}(x) = 1 - 329x^4 + 2256x^8 - 329x^{12} + x^{16}$
$P_{3,5}(x) = 1 + 1353x^5 - 15006x^{10} - 1353x^{15} + x^{20}$
$P_{3,6}(x) = 1 - 5796x^6 + 104006x^{12} - 5796x^{18} + x^{24}$
$P_{3,7}(x) = 1 + 24447x^7 - 709806x^{14} - 24447x^{21} + x^{28}$
$P_{3,8}(x) = 1 - 103729x^8 + 4873056x^{16} - 103729x^{24} + x^{32}$
$P_{3,9}(x) = 1 + 439128x^9 - 33379506x^{18} - 439128x^{27} + x^{36}$
$P_{3,10}(x) = 1 - 1860621x^{10} + 228841256x^{20} - 1860621x^{30} + x^{40}$
$P_{3,11}(x) = 1 + 7880997x^{11} - 1568358006x^{22} - 7880997x^{33} + x^{44}$
$P_{3,12}(x) = 1 - 33385604x^{12} + 10750060806x^{24} - 33385604x^{36} + x^{48}$
$P_{3,13}(x) = 1 + 141421803x^{13} - 73681030806x^{26} - 141421803x^{39} + x^{52}$
$P_{3,14}(x) = 1 - 599075421x^{14} + 505019869256x^{28} - 599075421x^{42} + x^{56}$
$P_{3,15}(x) = 1 + 2537719272x^{15} - 3461450947506x^{30} - 2537719272x^{45} + x^{60}$
$P_{3,16}(x) = 1 - 10749959329x^{16} + 23725155368256x^{32} - 10749959329x^{48} + x^{64}$
$P_{3,17}(x) = 1 + 45537545553x^{17} - 162614587921806x^{34} - 45537545553x^{51} + x^{68}$
$P_{3,18}(x) = 1 - 192900159396x^{18} + 1114577087604806x^{36} - 192900159396x^{54} + x^{72}$
$P_{3,19}(x) = 1 + 817138154247x^{19} - 7639424691459006x^{38} - 817138154247x^{57} + x^{76}$
$P_{3,20}(x) = 1 - 3461452823129x^{20} + 52361396626646256x^{40} - 3461452823129x^{60} + x^{80}$
$P_{3,21}(x) = 1 + 14662949371128x^{21} - 358890349406803506x^{42} - 14662949371128x^{63} + x^{84}$
$P_{3,22}(x) = 1 - 62113250430021x^{22} + 2459871055211724056x^{44} - 62113250430021x^{66} + x^{88}$
$P_{3,23}(x) = 1 + 263115950893197x^{23} - 16860207021391288806x^{46} - 263115950893197x^{69} + x^{92}$
$P_{3,24}(x) = 1 - 1114577054323204x^{24} + 115561578135588480006x^{48} - 1114577054323204x^{72} + x^{96}$
$P_{3,25}(x) = 1 + 4721424167667603x^{25} - 792070839820228500006x^{50} - 4721424167667603x^{75} + x^{100}$
$P_{3,26}(x) = 1 - 20000273725832421x^{26} + 5428934300887448551256x^{52} - 20000273725832421x^{78} + x^{104}$
$P_{3,27}(x) = 1 + 84722519069640072x^{27} - 37210469265655098336306x^{54} - 84722519069640072x^{81} + x^{108}$
$P_{3,28}(x) = 1 - 358890350006588729x^{28} + 255044350560627241339056x^{56} - 358890350006588729x^{84} + x^{112}$
$P_{3,29}(x) = 1 + 1520283919092441753x^{29} - 1748099984653685399451006x^{58} - 1520283919092441753x^{87} + x^{116}$
$P_{3,30}(x) = 1 - 6440026026382104996x^{30} + 11981655542028392128040006x^{60} - 6440026026382104996x^{90} + x^{120}$
$P_{3,31}(x) = 1 + 27280388024611559247x^{31} - 8212348880951044968749006x^{62} - 27280388024611559247x^{93} + x^{124}$
$P_{3,32}(x) = 1 - 115561578124843393729x^{32} + 562882766124635344664221056x^{64} - 115561578124843393729x^{96} + x^{128}$
$P_{3,33}(x) = 1 + 489526700523960779928x^{33} - 3858055874062699716175824306x^{66} - 489526700523960779928x^{99} + x^{132}$
$P_{3,34}(x) = 1 - 2073668380220725919421x^{34} + 26443508352314883801070453256x^{68} - 2073668380220725919421x^{102} + x^{136}$
$P_{3,35}(x) = 1 + 8784200221406800697397x^{35} - 181246502592139860745310610006x^{70} - 8784200221406800697397x^{105} + x^{140}$
$P_{3,36}(x) = 1 - 37210469265848031875204x^{36} + 1242282009792668398721620128006x^{72} - 37210469265848031875204x^{108} + x^{144}$
$P_{3,37}(x) = 1 + 157626077284798761271803x^{37} - 8514727565956527784535488090806x^{74} - 157626077284798761271803x^{111} + x^{148}$
$P_{3,38}(x) = 1 - 667714778405043347055021x^{38} + 58360810951903055273032906782056x^{76} - 667714778405043347055021x^{114} + x^{152}$
$P_{3,39}(x) = 1 + 2828485190904971712472872x^{39} - 400010949097364782732447070755506x^{78} - 2828485190904971712472872x^{117} + x^{156}$
$P_{3,40}(x) = 1 - 11981655542024930904058129x^{40} + 2741715832729650623856833844116256x^{80} - 11981655542024930904058129x^{120} + x^{160}$

$P_{4,d}$
$P_{4,1}(x) = 1 - 5x - 15x^2 + 15x^3 + 5x^4 - x^5$
$P_{4,2}(x) = 1 - 55x^2 + 385x^4 - 385x^6 + 55x^8 - x^{10}$
$P_{4,3}(x) = 1 - 305x^3 - 5490x^6 + 5490x^9 + 305x^{12} - x^{15}$
$P_{4,4}(x) = 1 - 2255x^4 + 105985x^8 - 105985x^{12} + 2255x^{16} - x^{20}$
$P_{4,5}(x) = 1 - 15005x^5 - 1845615x^{10} + 1845615x^{15} + 15005x^{20} - x^{25}$
$P_{4,6}(x) = 1 - 104005x^6 + 33489610x^{12} - 33489610x^{18} + 104005x^{24} - x^{30}$
$P_{4,7}(x) = 1 - 709805x^7 - 598365615x^{14} + 598365615x^{21} + 709805x^{28} - x^{35}$
$P_{4,8}(x) = 1 - 4873055x^8 + 10754832385x^{16} - 10754832385x^{24} + 4873055x^{32} - x^{40}$
$P_{4,9}(x) = 1 - 33379505x^9 - 192866779890x^{18} + 192866779890x^{27} + 33379505x^{36} - x^{45}$
$P_{4,10}(x) = 1 - 228841255x^{10} + 3461681664385x^{20} - 3461681664385x^{30} + 228841255x^{40} - x^{50}$
$P_{4,11}(x) = 1 - 1568358005x^{11} - 62111682072015x^{22} + 62111682072015x^{33} + 1568358005x^{44} - x^{55}$
$P_{4,12}(x) = 1 - 10750060805x^{12} + 1114587804384010x^{24} - 1114587804384010x^{36} + 10750060805x^{48} - x^{60}$
$P_{4,13}(x) = 1 - 73681030805x^{13} - 20000200044801615x^{26} + 20000200044801615x^{39} + 73681030805x^{52} - x^{65}$
$P_{4,14}(x) = 1 - 505019869255x^{14} + 358890855026457985x^{28} - 358890855026457985x^{42} + 505019869255x^{56} - x^{70}$
$P_{4,15}(x) = 1 - 3461450947505x^{15} - 6440022564931157490x^{30} + 6440022564931157490x^{45} + 3461450947505x^{60} - x^{75}$
$P_{4,16}(x) = 1 - 23725155368255x^{16} + 115561601849998761985x^{32} - 115561601849998761985x^{48} + 23725155368255x^{64} - x^{80}$
$P_{4,17}(x) = 1 - 162614587921805x^{17} - 2073668217606137997615x^{34} + 2073668217606137997615x^{51} + 162614587921805x^{68} - x^{85}$
$P_{4,18}(x) = 1 - 1114577087604805x^{18} + 37210470380425119480010x^{36} - 37210470380425119480010x^{54} + 1114577087604805x^{72} - x^{90}$
$P_{4,19}(x) = 1 - 7639424691459005x^{19} - 667714770765618655596015x^{38} + 667714770765618655596015x^{57} + 7639424691459005x^{76} - x^{95}$
$P_{4,20}(x) = 1 - 52361396626646255x^{20} + 11981655594386327530704385x^{40} - 11981655594386327530704385x^{60} + 52361396626646255x^{80} - x^{100}$
$P_{4,21}(x) = 1 - 358890349406803505x^{21} - 215002084619153360086795890x^{42} + 215002084619153360086795890x^{63} + 358890349406803505x^{84} - x^{105}$
$P_{4,22}(x) = 1 - 2459871055211724055x^{22} + 3858055876522632886206336385x^{44} - 3858055876522632886206336385x^{66} + 2459871055211724055x^{88} - x^{110}$
$P_{4,23}(x) = 1 - 16860207021391288805x^{23} - 69230003631291462203492169615x^{46} + 69230003631291462203492169615x^{69} + 16860207021391288805x^{92} - x^{115}$
$P_{4,24}(x) = 1 - 115561578135588480005x^{24} + 1242282009908228862290904345610x^{48} - 1242282009908228862290904345610x^{72} + 115561578135588480005x^{96} - x^{120}$
$P_{4,25}(x) = 1 - 792070839820228500005x^{25} - 22291846171827788605589324265615x^{50} + 22291846171827788605589324265615x^{75} + 792070839820228500005x^{100} - x^{125}$
$P_{4,26}(x) = 1 - 5428934300887448551255x^{26} + 400010949102793737033681926169985x^{52} - 400010949102793737033681926169985x^{78} + 5428934300887448551255x^{104} - x^{130}$
$P_{4,27}(x) = 1 - 37210469265655098336305x^{27} - 7177905237542736120478130726501490x^{54} + 7177905237542736120478130726501490x^{81} + 37210469265655098336305x^{108} - x^{135}$
$P_{4,28}(x) = 1 - 255044350560627241339055x^{28} + 128802283327596718163213084108496385x^{56} - 128802283327596718163213084108496385x^{84} + 255044350560627241339055x^{112} - x^{140}$
$P_{4,29}(x) = 1 - 1748099984653685399451005x^{29} - 2311263194652822082053339177097164015x^{58} + 2311263194652822082053339177097164015x^{87} + 1748099984653685399451005x^{116} - x^{145}$
$P_{4,30}(x) = 1 - 11981655542028392128040005x^{30} + 41473935220466903258413227627840120010x^{60} - 41473935220466903258413227627840120010x^{90} + 11981655542028392128040005x^{120} - x^{150}$
$P_{4,31}(x) = 1 - 82123488809510444968749005x^{31} - 744219570773451895180834031013559956015x^{62} + 744219570773451895180834031013559956015x^{93} + 82123488809510444968749005x^{124} - x^{155}$
$P_{4,32}(x) = 1 - 562882766124635344664221055x^{32} + 13354478338703720297216837046429452304385x^{64} - 13354478338703720297216837046429452304385x^{96} + 562882766124635344664221055x^{128} - x^{160}$

$P_{5,d}$
$P_{5,1}(x) = 1 + 8x - 40x^2 - 60x^3 + 40x^4 + 8x^5 - x^6$
$P_{5,2}(x) = 1 - 144x^2 + 2640x^4 - 6930x^6 + 2640x^8 - 144x^{10} + x^{12}$
$P_{5,3}(x) = 1 + 1292x^3 - 98515x^6 - 417240x^9 + 98515x^{12} + 1292x^{15} - x^{18}$
$P_{5,4}(x) = 1 - 15456x^4 + 4979040x^8 - 34127170x^{12} + 4979040x^{16} - 15456x^{20} + x^{24}$
$P_{5,5}(x) = 1 + 166408x^5 - 226995640x^{10} - 2517418860x^{15} + 226995640x^{20} + 166408x^{25} - x^{30}$
$P_{5,6}(x) = 1 - 1866294x^6 + 10783550415x^{12} - 193502966580x^{18} + 10783550415x^{24} - 1866294x^{30} + x^{36}$
$P_{5,7}(x) = 1 + 20608792x^7 - 504421503640x^{14} - 14645596792740x^{21} + 504421503640x^{28} + 20608792x^{35} - x^{42}$
$P_{5,8}(x) = 1 - 228929856x^8 + 23735910200640x^{16} - 1115082531341570x^{24} + 23735910200640x^{32} - 228929856x^{40} + x^{48}$
$P_{5,9}(x) = 1 + 2537281508x^9 - 1114384220824915x^{18} - 84707861194807560x^{27} + 1114384220824915x^{36} + 2537281508x^{45} - x^{54}$
$P_{5,10}(x) = 1 - 28145613744x^{10} + 52364858308310640x^{20} - 6440451813224963730x^{30} + 52364858308310640x^{40} - 28145613744x^{50} + x^{60}$
$P_{5,11}(x) = 1 + 312111123992x^{11} - 2459808943529652040x^{22} - 489514340299236329940x^{33} + 2459808943529652040x^{44} + 312111123992x^{55} - x^{66}$
$P_{5,12}(x) = 1 - 3461486193606x^{12} + 115562692723392864015x^{24} - 37210828163121010140820x^{36} + 115562692723392864015x^{48} - 3461486193606x^{60} + x^{72}$
$P_{5,13}(x) = 1 + 38387958471208x^{13} - 5428914300687403749640x^{26} - 2828474770800748512253260x^{39} + 5428914300687403749640x^{52} + 38387958471208x^{65} - x^{78}$
$P_{5,14}(x) = 1 - 425731150706544x^{14} + 255044709451482267797040x^{28} - 215002387523034496198605330x^{42} + 255044709451482267797040x^{56} - 425731150706544x^{70} + x^{84}$
$P_{5,15}(x) = 1 + 4721421630116092x^{15} - 11981649102005827196882515x^{30} - 16342978159331448281738963640x^{45} + 11981649102005827196882515x^{60} + 4721421630116092x^{75} - x^{90}$
$P_{5,16}(x) = 1 - 52361407147779456x^{16} + 562882881686237194662983040x^{32} - 1242282264837122567091833607170x^{48} + 562882881686237194662983040x^{64} - 52361407147779456x^{80} + x^{96}$
$P_{5,17}(x) = 1 + 580696739006311208x^{17} - 26443506278646666194932455640x^{34} - 94429768326117030750316057339260x^{51} + 26443506278646666194932455640x^{68} + 580696739006311208x^{85} - x^{102}$
$P_{5,18}(x) = 1 - 6440026219280403894x^{18} + 1242282047003138779146739608015x^{36} - 7177905452582044447839933280176180x^{54} + 1242282047003138779146739608015x^{72} - 6440026219280403894x^{90} + x^{108}$
$P_{5,19}(x) = 1 + 71420982257588391992x^{19} - 58360810284188284507414251186040x^{38} - 545615221589341735168566085955669940x^{57} + 58360810284188284507414251186040x^{76} + 71420982257588391992x^{95} - x^{114}$
$P_{5,20}(x) = 1 - 792070843309825076256x^{20} + 2741715844711306218243161374820640x^{40} - 41473935401701425779153172331224488770x^{60} + 2741715844711306218243161374820640x^{80} - 792070843309825076256x^{100} + x^{120}$
$P_{5,21}(x) = 1 + 8784200206743871959508x^{21} - 128802283112339589552388941767080915x^{42} - 3152564686720014825806869572256411267560x^{63} + 128802283112339589552388941767080915x^{84} + 8784200206743871959508x^{105} - x^{126}$
$P_{5,22}(x) = 1 - 97418273337436657320144x^{22} + 6050965604410384897605650239259306640x^{44} - 239636390678673886319369009632506688758930x^{66} + 6050965604410384897605650239259306640x^{88} - 97418273337436657320144x^{110} + x^{132}$
$P_{5,23}(x) = 1 + 1080385205986848346228792x^{23} - 284266580873402118587043968942410497640x^{46} - 18215518240222923760709101298122029410368740x^{69} + 284266580873402118587043968942410497640x^{92} + 1080385205986848346228792x^{115} - x^{138}$
$P_{5,24}(x) = 1 - 11981655543139507729555206x^{24} + 13354478339945439424474502827775380454415x^{48} - 1384619023113420767069042072833615536696998420x^{72} + 13354478339945439424474502827775380454415x^{96} - 11981655543139507729555206x^{120} + x^{144}$
$P_{5,25}(x) = 1 + 132878596163802777557006408x^{25} - 627376215315813920185946289216041609265640x^{50} - 105249261261335961470079415665593708393526208860x^{75} + 627376215315813920185946289216041609265640x^{100} + 132878596163802777557006408x^{125} - x^{150}$
$P_{5,26}(x) = 1 - 1473646213415791423372478544x^{26} + 29473327642952278810471926287090916435905040x^{52} - 8000328475277315245095095092998621698723110845330x^{78} + 29473327642952278810471926287090916435905040x^{104} - 1473646213415791423372478544x^{130} + x^{156}$
$P_{5,27}(x) = 1 + 16342986943437504328768141292x^{27} - 1384619022977440578480231562282357709607554515x^{54} - 608130213370936376522797685942662465199888432121240x^{81} + 1384619022977440578480231562282357709607554515x^{108} + 16342986943437504328768141292x^{135} - x^{162}$



$P_{6,d}$
$P_{6,1}(x) = 1 - 13x - 104x^2 + 260x^3 + 260x^4 - 104x^5 - 13x^6 + x^7$
$P_{6,2}(x) = 1 - 377x^2 + 18096x^4 - 124410x^6 + 124410x^8 - 18096x^{10} + 377x^{12} - x^{14}$
$P_{6,3}(x) = 1 - 5473x^3 - 1767779x^6 + 31716035x^9 + 31716035x^{12} - 1767779x^{15} - 5473x^{18} + x^{21}$
$P_{6,4}(x) = 1 - 105937x^4 + 233908896x^8 - 10988845010x^{12} + 10988845010x^{16} - 233908896x^{20} + 105937x^{24} - x^{28}$
$P_{6,5}(x) = 1 - 1845493x^5 - 27918618104x^{10} + 3433761185660x^{15} + 3433761185660x^{20} - 27918618104x^{25} - 1845493x^{30} + x^{35}$
$P_{6,6}(x) = 1 - 33489287x^6 + 3472269744021x^{12} - 1118060107513635x^{18} + 1118060107513635x^{24} - 3472269744021x^{30} + 33489287x^{36} - x^{42}$
$P_{6,7}(x) = 1 - 598364773x^7 - 425226729202904x^{14} + 358465627698179660x^{21} + 358465627698179660x^{28} - 425226729202904x^{35} - 598364773x^{42} + x^{49}$
$P_{6,8}(x) = 1 - 10754830177x^8 + 52385143057980096x^{16} - 115613987003806701410x^{24} + 115613987003806701410x^{32} - 52385143057980096x^{40} + 10754830177x^{48} - x^{56}$
$P_{6,9}(x) = 1 - 192866774113x^9 - 6438911835059578979x^{18} + 37204031468397159741635x^{27} + 37204031468397159741635x^{36} - 6438911835059578979x^{45} - 192866774113x^{54} + x^{63}$
$P_{6,10}(x) = 1 - 3461681649257x^{10} + 792123208168133386896x^{20} - 11982447717597957116914410x^{30} + 11982447717597957116914410x^{40} - 792123208168133386896x^{50} + 3461681649257x^{60} - x^{70}$
$P_{6,11}(x) = 1 - 62111682032413x^{11} - 97415813528493127668104x^{22} + 3857958460709042279828238260x^{33} + 3857958460709042279828238260x^{44} - 97415813528493127668104x^{55} - 62111682032413x^{66} + x^{77}$
$P_{6,12}(x) = 1 - 1114587804280327x^{12} + 11981771105832231122419221x^{24} - 1242293991679335809099081088035x^{36} + 1242293991679335809099081088035x^{48} - 11981771105832231122419221x^{60} + 1114587804280327x^{72} - x^{84}$
$P_{6,13}(x) = 1 - 20000200044530173x^{13} - 1473640784501490735968728904x^{26} + 400009475462009215542672231608660x^{39} + 400009475462009215542672231608660x^{52} - 1473640784501490735968728904x^{65} - 20000200044530173x^{78} + x^{91}$
$P_{6,14}(x) = 1 - 358890855025747337x^{14} + 181246757637208628308136626896x^{28} - 128802464574354355730731742251712010x^{42} + 128802464574354355730731742251712010x^{56} - 181246757637208628308136626896x^{70} + 358890855025747337x^{84} - x^{98}$
$P_{6,15}(x) = 1 - 6440022564929296993x^{15} - 22291834190977197465580594234979x^{30} + 41473912928632712274775736020863780035x^{45} + 41473912928632712274775736020863780035x^{60} - 22291834190977197465580594234979x^{75} - 6440022564929296993x^{90} + x^{105}$
$P_{6,16}(x) = 1 - 115561601849993891137x^{16} + 2741716395612647819310756952672896x^{32} - 13354481080420115909980217935311248371010x^{48} + 13354481080420115909980217935311248371010x^{64} - 2741716395612647819310756952672896x^{80} + 115561601849993891137x^{96} - x^{112}$
$P_{6,17}(x) = 1 - 2073668217606125245573x^{17} - 337208729136070195456207450278874904x^{34} + 4300100213918493539967609707992773709727660x^{51} + 4300100213918493539967609707992773709727660x^{68} - 337208729136070195456207450278874904x^{85} - 2073668217606125245573x^{102} + x^{119}$
$P_{6,18}(x) = 1 - 37210470380425086094727x^{18} + 41473936462737005816479240769030755221x^{36} - 1384619064458556188736789907551589908072544035x^{54} + 1384619064458556188736789907551589908072544035x^{72} - 41473936462737005816479240769030755221x^{90} + 37210470380425086094727x^{108} - x^{126}$
$P_{6,19}(x) = 1 - 667714770765618568192213x^{19} - 5100956764999566166279216484438500914104x^{38} + 445843020199539317922122928697160026478846559260x^{57} + 445843020199539317922122928697160026478846559260x^{76} - 5100956764999566166279216484438500914104x^{95} - 667714770765618568192213x^{114} + x^{133}$
$P_{6,20}(x) = 1 - 11981655594386327301878257x^{20} + 627376218079821623049943767249874840156896x^{40} - 143560070155112956111656727097927677051012511079410x^{60} + 143560070155112956111656727097927677051012511079410x^{80} - 627376218079821623049943767249874840156896x^{100} + 11981655594386327301878257x^{120} - x^{140}$
$P_{6,21}(x) = 1 - 215002084619153359487721313x^{21} - 77162173400961365988788529561827213358682979x^{42} + 46225896467743754995234757751150488580226667025405635x^{63} + 46225896467743754995234757751150488580226667025405635x^{84} - 77162173400961365988788529561827213358682979x^{105} - 215002084619153359487721313x^{126} + x^{147}$
$P_{6,22}(x) = 1 - 3858055876522632884637938777x^{22} + 9490319973996556315495585988410641100448874096x^{44} - 1488459513688050114541304848273365021419684340338932014884595136880501145413048482733650214196843403389320410x^{88} - 9490319973996556315495585988410641100448874096x^{110} + 3858055876522632884637938777x^{132} - x^{154}$

$P_{7,d}$
$P_{7,1}(x) = 1 + 21x - 273x^2 - 1092x^3 + 1820x^4 + 1092x^5 - 273x^6 - 21x^7 + x^8$
$P_{7,2}(x) = 1 - 987x^2 + 124033x^4 - 2232594x^6 + 5847270x^8 - 2232594x^{10} + 124033x^{12} - 987x^{14} + x^{16}$
$P_{7,3}(x) = 1 + 23184x^3 - 31721508x^6 - 2410834608x^9 + 10212563270x^{12} + 2410834608x^{15} - 31721508x^{18} - 23184x^{21} + x^{24}$
$P_{7,4}(x) = 1 - 726103x^4 + 10988739073x^8 - 3538373981506x^{12} + 24252380937070x^{16} - 3538373981506x^{20} + 10988739073x^{24} - 726103x^{28} + x^{32}$
$P_{7,5}(x) = 1 + 20466831x^5 - 3433763031153x^{10} - 4683652774492692x^{15} + 51942505455478820x^{20} + 4683652774492692x^{25} - 3433763031153x^{30} - 20466831x^{35} + x^{40}$
$P_{7,6}(x) = 1 - 600940872x^6 + 1118060074024348x^{12} - 6460151107712682744x^{18} + 115922708067228704070x^{24} - 6460151107712682744x^{30} + 1118060074024348x^{36} - 600940872x^{42} + x^{48}$
$P_{7,7}(x) = 1 + 17373187209x^7 - 358465628296544433x^{14} - 8773804718186221542108x^{21} + 254742522926828280840020x^{28} + 8773804718186221542108x^{35} - 358465628296544433x^{42} - 17373187209x^{49} + x^{56}$
$P_{7,8}(x) = 1 - 505248088463x^8 + 115613986993051871233x^{16} - 11987089399413604113179906x^{24} + 563138041755530860142794270x^{32} - 11987089399413604113179906x^{40} + 115613986993051871233x^{48} - 505248088463x^{56} + x^{64}$
$P_{7,9}(x) = 1 + 14660412114096x^9 - 37204031468590026515748x^{18} - 16340159437130614005822584592x^{27} + 1242067082109313265973531616070x^{36} + 16340159437130614005822584592x^{45} - 37204031468590026515748x^{54} - 14660412114096x^{63} + x^{72}$
$P_{7,10}(x) = 1 - 425758697244867x^{10} + 11982447717594495435265153x^{20} - 22293320013689123568319946626194x^{30} + 2741897103197930270175610630790070x^{40} - 22293320013689123568319946626194x^{50} + 11982447717594495435265153x^{60} - 425758697244867x^{70} + x^{80}$
$P_{7,11}(x) = 1 + 12360536835574179x^{11} - 3857958460709104391510270673x^{22} - 30405326788706750693953179186964908x^{33} + 6050812817681465434944433258009843820x^{44} + 30405326788706750693953179186964908x^{55} - 3857958460709104391510270673x^{66} - 12360536835574179x^{77} + x^{88}$
$P_{7,12}(x) = 1 - 358893811492071688x^{12} + 1242293991679334694511276807708x^{24} - 41474335239120242348642828405391353656x^{36} + 13354607143471084721254299145977357235270x^{48} - 41474335239120242348642828405391353656x^{60} + 1242293991679334694511276807708x^{72} - 358893811492071688x^{84} + x^{96}$
$P_{7,13}(x) = 1 + 10420142611158691341x^{13} - 40009475462009235542872276138833x^{26} - 56570269641858319799936398926723509507892x^{39} + 29473219063180230976299002823211664482659020x^{52} + 56570269641858319799936398926723509507892x^{65} - 40009475462009235542872276138833x^{78} - 10420142611158691341x^{91} + x^{104}$
$P_{7,14}(x) = 1 - 30254456505554298547x^{14} + 12880246457435435371840887225964673x^{28} - 77162282110241285066847612598040377120382994x^{42} + 65047712285848361121399713124386790895476770070x^{56} - 77162282110241285066847612598040377120382994x^{70} + 12880246457435435371840887225964673x^{84} - 30254456505554298547x^{98} + x^{112}$
$P_{7,15}(x) = 1 + 8784195499985191214544x^{15} - 41473912928632712281215758585793077028x^{30} - 105249204694658429220691865731561267999893149808x^{45} + 14355999236564615333003580444235229459686815840070x^{60} + 105249204694658429220691865731561267999893149808x^{75} - 41473912928632712281215758585793077028x^{90} + 8784195499985191214544x^{105} + x^{120}$
$P_{7,16}(x) = 1 - 255044402921529369959903x^{16} + 13354481080420115909864656333461254479873x^{32} - 143560099001076479777315072407974219506965162005506x^{48} + 316837073447741683750195761983479926838830019978971070x^{64} - 143560099001076479777315072407974219506965162005506x^{80} + 13354481080420115909864656333461254479873x^{96} - 255044402921529369959903x^{112} + x^{128}$
$P_{7,17}(x) = 1 + 7405069785768212258252391x^{17} - 4300100213918493539969683376210379834973233x^{34} - 195816024729436308108446114214906344693792610962597892x^{51} + 699259079143879888452751982047915598599686125814854508020x^{68} + 195816024729436308108446114214906344693792610962597892x^{85} - 4300100213918493539969683376210379834973233x^{102} - 7405069785768212258252391x^{119} + x^{136}$
$P_{7,18}(x) = 1 - 215002091418069928174928712x^{18} + 1384619064458556188736752697081209482986449308x^{36} - 267093230236466932801804196629441129489324428925569796344x^{54} + 1543264638080408008203790448239661026841167068615473901651270x^{72} - 267093230236466932801804196629441129489324428925569796344x^{90} + 1384619064458556188736752697081209482986449308x^{108} - 215002091418069928174928712x^{126} + x^{144}$

$P_{8,d}$
$P_{8,1}(x) = 1 - 34x - 714x^2 + 4641x^3 + 12376x^4 - 12376x^5 - 4641x^6 + 714x^7 + 34x^8 - x^9$
$P_{8,2}(x) = 1 - 2584x^2 + 850136x^4 - 40062659x^6 + 274715376x^8 - 274715376x^{10} + 40062659x^{12} - 850136x^{14} + 2584x^{16} - x^{18}$
$P_{8,3}(x) = 1 - 98209x^3 - 569219364x^6 + 183255151716x^9 + 3288411889126x^{12} - 3288411889126x^{15} - 183255151716x^{18} + 569219364x^{21} + 98209x^{24} - x^{27}$
$P_{8,4}(x) = 1 - 4976784x^4 + 516236827536x^8 - 1139345433305859x^{12} + 53524993973177376x^{16} - 53524993973177376x^{20} + 1139345433305859x^{24} - 516236827536x^{28} + 4976784x^{32} - x^{36}$
$P_{8,5}(x) = 1 - 226980634x^5 - 422324934213714x^{10} + 6388505818171063041x^{15} + 785734276563348306376x^{20} - 785734276563348306376x^{25} - 6388505818171063041x^{30} + 422324934213714x^{35} + 226980634x^{40} - x^{45}$
$P_{8,6}(x) = 1 - 10783446409x^6 + 360011871566096036x^{12} - 37326751982303806870484x^{18} + 12019098216711818657616126x^{24} - 12019098216711818657616126x^{30} + 37326751982303806870484x^{36} - 360011871566096036x^{42} + 10783446409x^{48} - x^{54}$
$P_{8,7}(x) = 1 - 504420793834x^7 - 302186099427257754114x^{14} + 214747644640791586761179841x^{21} + 181032009690022846439690310376x^{28} - 181032009690022846439690310376x^{35} - 214747644640791586761179841x^{42} + 302186099427257754114x^{49} + 504420793834x^{56} - x^{63}$
$P_{8,8}(x) = 1 - 23735905327584x^8 + 255160016908522421831136x^{16} - 1242845402994387314669667142659x^{24} + 2742959241270686661932088292925376x^{32} - 2742959241270686661932088292925376x^{40} + 1242845402994387314669667142659x^{48} - 255160016908522421831136x^{56} + 23735905327584x^{64} - x^{72}$
$P_{8,9}(x) = 1 - 1114384187445409x^9 - 214964887386601338148412964x^{18} + 7176663385462718225281892469660516x^{27} + 41466759799136541000396977306193361126x^{36} - 41466759799136541000396977306193361126x^{45} - 7176663385462718225281892469660516x^{54} + 214964887386601338148412964x^{63} + 1114384187445409x^{72} - x^{81}$
$P_{8,10}(x) = 1 - 52364858079469384x^{10} + 181258485831928724281122582536x^{20} - 41476677298816604572894529562705419459x^{30} + 627417694757301686158692996113929684631376x^{40} - 627417694757301686158692996113929684631376x^{50} + 41476677298816604572894529562705419459x^{60} - 181258485831928724281122582536x^{70} + 52364858079469384x^{80} - x^{90}$
$P_{8,11}(x) = 1 - 2459808941961294034x^{11} - 152786728822046847688488121794714x^{22} + 239630339865852346700641729099982595340641x^{33} + 9490080343656537672562007423311281856775832376x^{44} - 9490080343656537672562007423311281856775832376x^{55} - 239630339865852346700641729099982595340641x^{66} + 152786728822046847688488121794714x^{77} + 2459808941961294034x^{88} - x^{99}$
$P_{8,12}(x) = 1 - 115562692712642803209x^{12} + 128803525633315008690485970854361636x^{24} - 1384632377720565480423791464256906150890483284x^{36} + 143561454173469062999070755867509579085161007424126x^{48} - 143561454173469062999070755867509579085161007424126x^{60} + 1384632377720565480423791464256906150890483284x^{72} - 128803525633315008690485970854361636x^{84} + 115562692712642803209x^{96} - x^{108}$
$P_{8,13}(x) = 1 - 5428914300613722718834x^{13} - 108579772046360532138962388515984517114x^{26} + 8000299002058251664851696050417579962914459119841x^{39} + 2171625161986224787599558709512662164285720734660480376x^{52} - 2171625161986224787599558709512662164285720734660480376x^{65} - 8000299002058251664851696050417579962914459119841x^{78} + 108579772046360532138962388515984517114x^{91} + 5428914300613722718834x^{104} - x^{117}$
$P_{8,14}(x) = 1 - 255044709450977247927784x^{14} + 91533085042189952824295402356161980346536x^{28} - 46225961592709747200796970733124167178513410102961859x^{42} + 32850340927909356006719045301925664674140004399431285407376x^{56} - 32850340927909356006719045301925664674140004399431285407376x^{70} + 46225961592709747200796970733124167178513410102961859x^{84} - 91533085042189952824295402356161980346536x^{98} + 255044709450977247927784x^{112} - x^{126}$
$P_{8,15}(x) = 1 - 11981649102002365745935009x^{15} - 77162132055873012099586379219885267630204964x^{30} + 267093078676222774846169058792956978582871050648594114916496926138690811560163382236866761765567742469975906952590225126x^{60} - 496926138690811560163382236866761765567742469975906952590225126x^{75} - 267093078676222774846169058792956978582871050648594114916496926138690811560163382236866761765567742469975906952590225126x^{90} + 77162132055873012099586379219885267630204964x^{105} + 11981649102002365745935009x^{120} - x^{135}$
$P_{8,16}(x) = 1 - 562882881686213469507614784x^{16} + 65047634107118338602820919060051440242573289536x^{32} - 15432649086916471894354826555896280346714268155735117517007250705666800646804658201503828453347720293610604536267317376x^{64} - 7517007250705666800646804658201503828453347720293610604536267317376x^{80} + 1543264908691647189435482655589628034671426815573511773433859x^{96} - 65047634107118338602820919060051440242573289536x^{112} + 562882881686213469507614784x^{128} - x^{144}$

$P_{9,d}$
$P_{9,1}(x) = 1 + 55x - 1870x^2 - 19635x^3 + 85085x^4 + 136136x^5 - 85085x^6 - 19635x^7 + 1870x^8 + 55x^9 - x^{10}$
$P_{9,2}(x) = 1 - 6765x^2 + 5826920x^4 - 718896255x^6 + 12905899435x^8 - 33789991248x^{10} + 12905899435x^{12} - 718896255x^{14} + 5826920x^{16} - 6765x^{18} + x^{20}$
$P_{9,3}(x) = 1 + 416020x^3 - 10214227045x^6 - 13929802341840x^9 + 1058858447456810x^{12} + 4485393816767864x^{15} - 1058858447456810x^{18} - 13929802341840x^{21} + 10214227045x^{24} + 416020x^{27} - x^{30}$
$P_{9,4}(x) = 1 - 34111385x^4 + 24252142155120x^8 - 366865691151231195x^{12} + 118129637457410270835x^{16} - 809672583832254166752x^{20} + 118129637457410270835x^{24} - 366865691151231195x^{28} + 24252142155120x^{32} - 34111385x^{36} + x^{40}$
$P_{9,5}(x) = 1 + 2517253805x^5 - 51942533145255670x^{10} - 8713926619638084013785x^{15} + 11885802349634698138102085x^{20} + 131815567970543875225944136x^{25} - 11885802349634698138102085x^{30} - 8713926619638084013785x^{35} + 51942533145255670x^{40} + 2517253805x^{45} - x^{50}$
$P_{9,6}(x) = 1 - 193501094490x^6 + 115922704584208899245x^{12} - 215673966493600288985914680x^{18} + 1246164141189193192051800496210x^{24} - 22361508193995905188857487190748x^{30} + 1246164141189193192051800496210x^{36} - 215673966493600288985914680x^{42} + 115922704584208899245x^{48} - 193501094490x^{54} + x^{60}$
$P_{9,7}(x) = 1 + 14645576208395x^7 - 254742523351549990173670x^{14} - 5256163359001819595735486143215x^{21} + 128649854589930923589365400013477685x^{28} + 3735276722584557306050429259972187864x^{35} - 128649854589930923589365400013477685x^{42} - 5256163359001819595735486143215x^{49} + 254742523351549990173670x^{56} + 14645576208395x^{63} - x^{70}$
$P_{9,8}(x) = 1 - 1115082302307985x^8 + 563138041703121991929445920x^{16} - 128860697061276976160167329820078995x^{24} + 13360534791465037177285784921463597990435x^{32} - 627660739698829787480478101092155290098752x^{40} + 13360534791465037177285784921463597990435x^{48} - 128860697061276976160167329820078995x^{56} + 563138041703121991929445920x^{64} - 1115082302307985x^{72} + x^{80}$
$P_{9,9}(x) = 1 + 84707858657965180x^9 - 1242067082115751063231503590245x^{18} - 3152019265565107854853838899590187739760x^{27} + 1384379469520435535735770294033068324214247210x^{36} + 105231052050324015078367493501950583135650396136x^{45} - 1384379469520435535735770294033068324214247210x^{54} - 3152019265565107854853838899590187739760x^{63} + 1242067082115751063231503590245x^{72} + 84707858657965180x^{81} - x^{90}$
$P_{9,10}(x) = 1 - 6440451785077489365x^{10} + 2741897103197138094606045870756920x^{20} - 77167275161071401854647437339211746243249255x^{30} + 143569561102581547072366134467294027903413997235835x^{40} - 17657888706251270056881881882979635425646693403787248x^{50} + 143569561102581547072366134467294027903413997235835x^{60} - 77167275161071401854647437339211746243249255x^{70} + 2741897103197138094606045870756920x^{80} - 6440451785077489365x^{90} + x^{100}$
$P_{9,11}(x) = 1 + 489514339987133086945x^{11} - 6050812817681562848298090695925787870x^{22} - 1888573676029426456734499499566548023110629877365x^{33} + 14884219301228651309500789188014143506034403367451951085x^{44} + 2962034434127745716324847643368349016755001208819371723864x^{55} - 14884219301228651309500789188014143506034403367451951085x^{66} - 1888573676029426456734499499566548023110629877365x^{77} + 6050812817681562848298090695925787870x^{88} + 489514339987133086945x^{99} - x^{110}$
$P_{9,12}(x) = 1 - 37210828159659490561610x^{12} + 13354607143471072739367631735610646336045x^{24} - 46226342396531554289078518423167384011078741653344120x^{36} + 1543279476736760377220172744277629097360173851824212087897810x^{48} - 496931198669604930127609307414271650002963659438520111660656252x^{60} + 1543279476736760377220172744277629097360173851824212087897810x^{72} - 46226342396531554289078518423167384011078741653344120x^{84} + 13354607143471072739367631735610646336045x^{96} - 37210828159659490561610x^{108} + x^{120}$
$P_{9,13}(x) = 1 + 2828474770762360695203855x^{13} - 29473219063180232449934358390401513002836670x^{26} - 1131420877565958790390465612649995128737175406043259547035160008169927497363425576989660360954778836521323166074718061684685x^{52} + 83364563648503391313106415896153839656766463839455011041335465052136x^{65} - 160008169927497363425576989660360954778836521323166074718061684685x^{78} - 1131420877565958790390465612649995128737175406043259547035x^{91} + 29473219063180232449934358390401513002836670x^{104} + 2828474770762360695203855x^{117} - x^{130}$
$P_{9,14}(x) = 1 - 215002387522608764448823365x^{14} + 65047712285848360940152700442827601960098804120x^{28} - 2769279843379679960364184439538342600722206177129749016590051535365878614076408649308529731034751027761297090795496500879835x^{56} - 13985393764509307128240595349611318610850090790249567219702715084335363216590051535365878614076408649308529731034751027761297090795496500879835x^{84} - 27692798433796799603641844395383426007222061771297490664436055x^{98} + 65047712285848360940152700442827601960098804120x^{112} - 215002387522608764448823365x^{126} + x^{140}$

$P_{10,d}$
$P_{10,1}(x) = 1 - 89x - 4895x^2 + 83215x^3 + 582505x^4 - 1514513x^5 - 1514513x^6 + 582505x^7 + 83215x^8 - 4895x^9 - 89x^{10} + x^{11}$
$P_{10,2}(x) = 1 - 17711x^2 + 39938305x^4 - 12900072515x^6 + 606303408205x^8 - 4155934270787x^{10} + 4155934270787x^{12} - 606303408205x^{14} + 12900072515x^{16} - 39938305x^{18} + 17711x^{20} - x^{22}$
$P_{10,3}(x) = 1 - 1762289x^3 - 183286867445x^6 + 1058848233229765x^9 + 340949131099984330x^{12} - 6118080637738407338x^{15} - 6118080637738407338x^{18} + 340949131099984330x^{21} + 1058848233229765x^{24} - 183286867445x^{27} - 1762289x^{30} + x^{33}$
$P_{10,4}(x) = 1 - 233802911x^4 + 1139334444463105x^8 - 118129613205268115715x^{12} + 260712056344026731383005x^{16} - 12247917123244860240585987x^{20} + 12247917123244860240585987x^{24} - 260712056344026731383005x^{28} + 118129613205268115715x^{32} - 1139334444463105x^{36} + 233802911x^{40} - x^{44}$
$P_{10,5}(x) = 1 - 27916772489x^5 - 6388509251932233695x^{10} + 11885802297692164992846415x^{15} + 179796531357189379846787719705x^{20} - 22113511499098533834161133568913x^{25} - 22113511499098533834161133568913x^{30} + 179796531357189379846787719705x^{35} + 11885802297692164992846415x^{40} - 6388509251932233695x^{45} - 27916772489x^{50} + x^{55}$
$P_{10,6}(x) = 1 - 3472236254411x^6 + 37326750864243699460855x^{12} - 1246164141073270487467591596965x^{18} + 129204790474758830681614831956525130x^{24} - 41603541271901011840594247688561526862x^{30} + 41603541271901011840594247688561526862x^{36} - 129204790474758830681614831956525130x^{42} + 1246164141073270487467591596965x^{48} - 37326750864243699460855x^{54} + 3472236254411x^{60} - x^{66}$
$P_{10,7}(x) = 1 - 425226130837289x^7 - 214747644999257214458649695x^{14} + 128649854589676181066013850023304015x^{21} + 91424633214589609046019544477510928347705x^{28} - 77070857348224049851691987637237312002301713x^{35} - 77070857348224049851691987637237312002301713x^{42} + 91424633214589609046019544477510928347705x^{49} + 128649854589676181066013850023304015x^{56} - 214747644999257214458649695x^{63} - 425226130837289x^{70} + x^{77}$
$P_{10,8}(x) = 1 - 52385132303147711x^8 + 1242845402878773327665865314305x^{16} - 13360534791464474039244081799471668544515x^{24} + 65077120807400358980629918100711178315045254205x^{32} - 143625176135238363959674496113540090498440241910787x^{40} + 143625176135238363959674496113540090498440241910787x^{48} - 65077120807400358980629918100711178315045254205x^{56} + 13360534791464474039244081799471668544515x^{64} - 1242845402878773327665865314305x^{72} + 52385132303147711x^{80} - x^{88}$
$P_{10,9}(x) = 1 - 6438911642192799089x^9 - 7176663385499922256750289596022645x^{18} + 1384379469520434293668688178282005092710656965x^{27} + 46217898984950103656599969402011015545581427181789130x^{36} - 267047012336097363592222281914017904794195856754564884138x^{45} - 267047012336097363592222281914017904794195856754564884138x^{54} + 46217898984950103656599969402011015545581427181789130x^{63} + 1384379469520434293668688178282005092710656965x^{72} - 7176663385499922256750289596022645x^{81} - 6438911642192799089x^{90} + x^{99}$
$P_{10,10}(x) = 1 - 792123204706451722511x^{10} + 41476677298804622125176931605817346305x^{20} - 143569561102581544330469031270155933297368126478915x^{30} + 32852466622193584490820036518991672902507087675416266612205x^{40} - 496959260422145611285458474668145232186391441675876493948363587x^{60} - 496959260422145611285458474668145232186391441675876493948363587x^{60} - 32852466622193584490820036518991672902507087675416266612205x^{70} + 143569561102581544330469031270155933297368126478915x^{80} - 41476677298804622125176931605817346305x^{90} + 792123204706451722511x^{100} - x^{110}$
$P_{10,11}(x) = 1 - 97415813466381445596089x^{11} - 239630339865856204659102438142260855220895x^{22} + 14884219301228651303449976370332580657736312671526163215x^{33} + 23344373934110228864168373783436165297728118831025411424297426505x^{44} - 924507240323107657096927990665124615928772375594259554262392717530513x^{55} - 924507240323107657096927990665124615928772375594259554262392717530513x^{66} + 23344373934110228864168373783436165297728118831025411424297426505x^{77} + 14884219301228651303449976370332580657736312671526163215x^{88} - 239630339865856204659102438142260855220895x^{99} - 97415813466381445596089x^{110} + x^{121}$
$P_{10,12}(x) = 1 - 11981771104717643318035211x^{12} + 138463237720564238129799784921097062559456055x^{24} - 15432794767367603772068181371341580246208062200886014416590188202182770536161841100244114726245887175023360537736362464640330x^{48} - 1720103893018703712038196101776251499701037876995094995145806987821359987662x^{72} - 16590188202182770536161841100244114726245887175023360537736362464640330x^{72} - 16590188202182770536161841100244114726245887175023360537736362464640330x^{72} - 1543279476736760377206818137134158024620806220088601441561765x^{96} - 138463237720564238129799784921097062559456055x^{108} + 11981771104717643318035211x^{120} - x^{132}$

$P_{11,d}$
$P_{11,1}(x) = 1 + 144x - 12816x^2 - 352440x^3 + 3994320x^4 + 16776144x^5 - 27261234x^6 - 16776144x^7 + 3994320x^8 + 352440x^9 - 12816x^{10} - 144x^{11} + x^{12}$
$P_{11,2}(x) = 1 - 46368x^2 + 273741216x^4 - 231482415780x^6 + 28483360113120x^8 - 511146844211808x^{10} + 1338210835193414x^{12} - 511146844211808x^{14} + 28483360113120x^{16} - 231482415780x^{18} + 273741216x^{20} - 46368x^{22} + x^{24}$
$P_{11,3}(x) = 1 + 7465176x^3 - 3288949386966x^6 - 80486395527387960x^9 + 109784561365961724495x^{12} + 8345066461339202035056x^{15} - 35350269924852517598964x^{18} - 8345066461339202035056x^{21} + 109784561365961724495x^{24} + 80486395527387960x^{27} - 3288949386966x^{30} - 7465176x^{33} + x^{36}$
$P_{11,4}(x) = 1 - 1602508992x^4 + 53524466747610816x^8 - 38037368586405216140420x^{12} + 575391390221653790894176320x^{16} - 185274241514019282718241289792x^{20} + 1269888543172273599464436304134x^{24} - 185274241514019282718241289792x^{28} + 575391390221653790894176320x^{32} - 38037368586405216140420x^{36} + 53524466747610816x^{40} - 1602508992x^{44} + x^{48}$
$P_{11,5}(x) = 1 + 309601751184x^5 - 785734695454519488816x^{10} - 16212243047978732685809270040x^{15} + 2719782117954401451250192843131120x^{20} + 3709784802732075988596630165796344144x^{25} - 41142143917049824001389120682695498674x^{30} - 3709784802732075988596630165796344144x^{35} + 2719782117954401451250192843131120x^{40} + 16212243047978732685809270040x^{45} - 785734695454519488816x^{50} - 309601751184x^{55} + x^{60}$
$P_{11,6}(x) = 1 - 62306751484908x^6 + 12019097855581887017496066x^{12} - 7200336191447390382987648762443580x^{18} + 13396211084757780941657918519448846931695x^{24} - 77403305329266927434881887224484775102421208x^{30} + 1388945957561053956383578006660474748638445084x^{36} - 77403305329266927434881887224484775102421208x^{42} + 13396211084757780941657918519448846931695x^{48} - 7200336191447390382987648762443580x^{54} + 12019097855581887017496066x^{60} - 62306751484908x^{66} + x^{72}$
$P_{11,7}(x) = 1 + 12346203370489776x^7 - 181032009991850480238651519216x^{14} - 3148833846193077566773574574260299005960x^{21} + 64970641319919812045136975043243694847488211120x^{28} + 1590221419600816781409341756502466989094584280483056x^{49} + 64970641319919812045136975043243694847488211120x^{56} + 3148833846193077566773574574260299005960x^{63} - 181032009991850480238651519216x^{70} - 12346203370489776x^{77} + x^{84}$
$P_{11,8}(x) = 1 - 2460986135945634432x^8 + 2742959241015411031036572819225216x^{16} - 1385246968119758900275627912973769290514633220x^{24} + 316980698653350255804932830217055496680503759640117120x^{32} - 32865192794719422419048088288205204964485639172562998712192x^{40} + 1543964485093510085815930970297511616486232208420267599275014x^{48} - 32865192794719422419048088288205204964485639172562998712192x^{56} + 316980698653350255804932830217055496680503759640117120x^{64} - 1385246968119758900275627912973769290514633220x^{72} + 2742959241015411031036572819225216x^{80} - 2460986135945634432x^{88} + x^{96}$
$P_{11,9}(x) = 1 + 489441992665310695944x^9 - 41466759799351468683752110054315252566x^{18} - 608025000534404842782027630509023518930622911430440x^{27} + 1542997591060071582125351619243215452407441518421402658927695x^{36} + 677690713987460847398408622810517564182973797359870977223414328144x^{45} - 51513409702861122483544478491216556902402879442734689072968571511284x^{54} - 677690713987460847398408622810517564182973797359870977223414328144x^{63} + 1542997591060071582125351619243215452407441518421402658927695x^{72} + 608025000534404842782027630509023518930622911430440x^{81} - 41466759799351468683752110054315252566x^{90} - 489441992665310695944x^{99} + x^{108}$
$P_{11,10}(x) = 1 - 97424713727108484379488x^{10} + 627417694757120415690413349795153126798816x^{20} - 267110881292153590788587900338207926156988044616602639780x^{30} + 7517502699553330039712054908057882125062514192659004104302154601120x^{40} - 13986298737509530845958208102299344772067503774737589232235113355210194208x^{50} + 1720201027450833110089771017930019099052732925640503698722109898213999023174x^{60} - 13986298737509530845958208102299344772067503774737589232235113355210194208x^{70} + 7517502699553330039712054908057882125062514192659004104302154601120x^{80} - 267110881292153590788587900338207926156988044616602639780x^{90} + 627417694757120415690413349795153126798816x^{100} - 97424713727108484379488x^{110} + x^{120}$
$P_{11,11}(x) = 1 + 19386236394149894806708656x^{11} - 9490080343656690455432871009449865953387316816x^{22} - 11730544961996793031182076939641638784892787351526443436613260215171658609899786185794166586763247740859311976322232715174210320x^{44} + 28855627995477466079742313080941401459941950938793671350610185727116957424149705943534434642807784648983809834443060059595593548191118166976590077824434x^{66} - 28855627995477466079742313080941401459941950938793671350610185727116957424149705943534434642807784648983809834443060059595593548191118166976590077824434x^{88} + 117305449619967930311820769396416387848927873515264434922195560x^{99} - 9490080343656690455432871009449865953387316816x^{110} - 19386236394149894806708656x^{121} + x^{132}$



$Q_{1,d}$
$Q_{1,1}(x) = 1 + x - x^2$
$Q_{1,2}(x) = 1 - 3x^2 + x^4$
$Q_{1,3}(x) = 1 + 4x^3 - x^6$
$Q_{1,4}(x) = 1 - 7x^4 + x^8$
$Q_{1,5}(x) = 1 + 11x^5 - x^{10}$
$Q_{1,6}(x) = 1 - 18x^6 + x^{12}$
$Q_{1,7}(x) = 1 + 29x^7 - x^{14}$
$Q_{1,8}(x) = 1 - 47x^8 + x^{16}$
$Q_{1,9}(x) = 1 + 76x^9 - x^{18}$
$Q_{1,10}(x) = 1 - 123x^{10} + x^{20}$
$Q_{1,11}(x) = 1 + 199x^{11} - x^{22}$
$Q_{1,12}(x) = 1 - 322x^{12} + x^{24}$
$Q_{1,13}(x) = 1 + 521x^{13} - x^{26}$
$Q_{1,14}(x) = 1 - 843x^{14} + x^{28}$
$Q_{1,15}(x) = 1 + 1364x^{15} - x^{30}$
$Q_{1,16}(x) = 1 - 2207x^{16} + x^{32}$
$Q_{1,17}(x) = 1 + 3571x^{17} - x^{34}$
$Q_{1,18}(x) = 1 - 5778x^{18} + x^{36}$
$Q_{1,19}(x) = 1 + 9349x^{19} - x^{38}$
$Q_{1,20}(x) = 1 - 15127x^{20} + x^{40}$
$Q_{1,21}(x) = 1 + 24476x^{21} - x^{42}$
$Q_{1,22}(x) = 1 - 39603x^{22} + x^{44}$
$Q_{1,23}(x) = 1 + 64079x^{23} - x^{46}$
$Q_{1,24}(x) = 1 - 103682x^{24} + x^{48}$
$Q_{1,25}(x) = 1 + 167761x^{25} - x^{50}$
$Q_{1,26}(x) = 1 - 271443x^{26} + x^{52}$
$Q_{1,27}(x) = 1 + 439204x^{27} - x^{54}$
$Q_{1,28}(x) = 1 - 710647x^{28} + x^{56}$
$Q_{1,29}(x) = 1 + 1149851x^{29} - x^{58}$
$Q_{1,30}(x) = 1 - 1860498x^{30} + x^{60}$
$Q_{1,31}(x) = 1 + 3010349x^{31} - x^{62}$
$Q_{1,32}(x) = 1 - 4870847x^{32} + x^{64}$
$Q_{1,33}(x) = 1 + 7881196x^{33} - x^{66}$
$Q_{1,34}(x) = 1 - 12752043x^{34} + x^{68}$
$Q_{1,35}(x) = 1 + 20633239x^{35} - x^{70}$
$Q_{1,36}(x) = 1 - 33385282x^{36} + x^{72}$
$Q_{1,37}(x) = 1 + 54018521x^{37} - x^{74}$
$Q_{1,38}(x) = 1 - 87403803x^{38} + x^{76}$
$Q_{1,39}(x) = 1 + 141422324x^{39} - x^{78}$
$Q_{1,40}(x) = 1 - 228826127x^{40} + x^{80}$
$Q_{1,41}(x) = 1 + 370248451x^{41} - x^{82}$



$Q_{2,d}$
$Q_{2,1}(x) = 1 - 2x^2 - 2x^4 + x^6$
$Q_{2,2}(x) = 1 - 8x^4 + 8x^8 - x^{12}$
$Q_{2,3}(x) = 1 - 17x^6 - 17x^{12} + x^{18}$
$Q_{2,4}(x) = 1 - 48x^8 + 48x^{16} - x^{24}$
$Q_{2,5}(x) = 1 - 122x^{10} - 122x^{20} + x^{30}$
$Q_{2,6}(x) = 1 - 323x^{12} + 323x^{24} - x^{36}$
$Q_{2,7}(x) = 1 - 842x^{14} - 842x^{28} + x^{42}$
$Q_{2,8}(x) = 1 - 2208x^{16} + 2208x^{32} - x^{48}$
$Q_{2,9}(x) = 1 - 5777x^{18} - 5777x^{36} + x^{54}$
$Q_{2,10}(x) = 1 - 15128x^{20} + 15128x^{40} - x^{60}$
$Q_{2,11}(x) = 1 - 39602x^{22} - 39602x^{44} + x^{66}$
$Q_{2,12}(x) = 1 - 103683x^{24} + 103683x^{48} - x^{72}$
$Q_{2,13}(x) = 1 - 271442x^{26} - 271442x^{52} + x^{78}$
$Q_{2,14}(x) = 1 - 710648x^{28} + 710648x^{56} - x^{84}$
$Q_{2,15}(x) = 1 - 1860497x^{30} - 1860497x^{60} + x^{90}$
$Q_{2,16}(x) = 1 - 4870848x^{32} + 4870848x^{64} - x^{96}$
$Q_{2,17}(x) = 1 - 12752042x^{34} - 12752042x^{68} + x^{102}$
$Q_{2,18}(x) = 1 - 33385283x^{36} + 33385283x^{72} - x^{108}$
$Q_{2,19}(x) = 1 - 87403802x^{38} - 87403802x^{76} + x^{114}$
$Q_{2,20}(x) = 1 - 228826128x^{40} + 228826128x^{80} - x^{120}$
$Q_{2,21}(x) = 1 - 599074577x^{42} - 599074577x^{84} + x^{126}$
$Q_{2,22}(x) = 1 - 1568397608x^{44} + 1568397608x^{88} - x^{132}$
$Q_{2,23}(x) = 1 - 4106118242x^{46} - 4106118242x^{92} + x^{138}$
$Q_{2,24}(x) = 1 - 10749957123x^{48} + 10749957123x^{96} - x^{144}$
$Q_{2,25}(x) = 1 - 28143753122x^{50} - 28143753122x^{100} + x^{150}$
$Q_{2,26}(x) = 1 - 73681302248x^{52} + 73681302248x^{104} - x^{156}$
$Q_{2,27}(x) = 1 - 192900153617x^{54} - 192900153617x^{108} + x^{162}$
$Q_{2,28}(x) = 1 - 505019158608x^{56} + 505019158608x^{112} - x^{168}$
$Q_{2,29}(x) = 1 - 1322157322202x^{58} - 1322157322202x^{116} + x^{174}$
$Q_{2,30}(x) = 1 - 3461452808003x^{60} + 3461452808003x^{120} - x^{180}$
$Q_{2,31}(x) = 1 - 9062201101802x^{62} - 9062201101802x^{124} + x^{186}$
$Q_{2,32}(x) = 1 - 23725150497408x^{64} + 23725150497408x^{128} - x^{192}$
$Q_{2,33}(x) = 1 - 62113250390417x^{66} - 62113250390417x^{132} + x^{198}$
$Q_{2,34}(x) = 1 - 162614600673848x^{68} + 162614600673848x^{136} - x^{204}$
$Q_{2,35}(x) = 1 - 425730551631122x^{70} - 425730551631122x^{140} + x^{210}$
$Q_{2,36}(x) = 1 - 1114577054219523x^{72} + 1114577054219523x^{144} - x^{216}$
$Q_{2,37}(x) = 1 - 2918000611027442x^{74} - 2918000611027442x^{148} + x^{222}$
$Q_{2,38}(x) = 1 - 7639424778862808x^{76} + 7639424778862808x^{152} - x^{228}$
$Q_{2,39}(x) = 1 - 20000273725560977x^{78} - 20000273725560977x^{156} + x^{234}$
$Q_{2,40}(x) = 1 - 52361396397820128x^{80} + 52361396397820128x^{160} - x^{240}$
$Q_{2,41}(x) = 1 - 137083915467899402x^{82} - 137083915467899402x^{164} + x^{246}$

$Q_{3,d}$
$Q_{3,1}(x) = 1 + 3x^3 - 6x^6 - 3x^9 + x^{12}$
$Q_{3,2}(x) = 1 - 21x^6 + 56x^{12} - 21x^{18} + x^{24}$
$Q_{3,3}(x) = 1 + 72x^9 - 306x^{18} - 72x^{27} + x^{36}$
$Q_{3,4}(x) = 1 - 329x^{12} + 2256x^{24} - 329x^{36} + x^{48}$
$Q_{3,5}(x) = 1 + 1353x^{15} - 15006x^{30} - 1353x^{45} + x^{60}$
$Q_{3,6}(x) = 1 - 5796x^{18} + 104006x^{36} - 5796x^{54} + x^{72}$
$Q_{3,7}(x) = 1 + 24447x^{21} - 709806x^{42} - 24447x^{63} + x^{84}$
$Q_{3,8}(x) = 1 - 103729x^{24} + 4873056x^{48} - 103729x^{72} + x^{96}$
$Q_{3,9}(x) = 1 + 439128x^{27} - 33379506x^{54} - 439128x^{81} + x^{108}$
$Q_{3,10}(x) = 1 - 1860621x^{30} + 228841256x^{60} - 1860621x^{90} + x^{120}$
$Q_{3,11}(x) = 1 + 7880997x^{33} - 1568358006x^{66} - 7880997x^{99} + x^{132}$
$Q_{3,12}(x) = 1 - 33385604x^{36} + 10750060806x^{72} - 33385604x^{108} + x^{144}$
$Q_{3,13}(x) = 1 + 141421803x^{39} - 73681030806x^{78} - 141421803x^{117} + x^{156}$
$Q_{3,14}(x) = 1 - 599075421x^{42} + 505019869256x^{84} - 599075421x^{126} + x^{168}$
$Q_{3,15}(x) = 1 + 2537719272x^{45} - 3461450947506x^{90} - 2537719272x^{135} + x^{180}$
$Q_{3,16}(x) = 1 - 10749959329x^{48} + 23725155368256x^{96} - 10749959329x^{144} + x^{192}$
$Q_{3,17}(x) = 1 + 45537545553x^{51} - 162614587921806x^{102} - 45537545553x^{153} + x^{204}$
$Q_{3,18}(x) = 1 - 192900159396x^{54} + 1114577087604806x^{108} - 192900159396x^{162} + x^{216}$
$Q_{3,19}(x) = 1 + 817138154247x^{57} - 7639424691459006x^{114} - 817138154247x^{171} + x^{228}$
$Q_{3,20}(x) = 1 - 3461452823129x^{60} + 52361396626646256x^{120} - 3461452823129x^{180} + x^{240}$
$Q_{3,21}(x) = 1 + 14662949371128x^{63} - 358890349406803506x^{126} - 14662949371128x^{189} + x^{252}$
$Q_{3,22}(x) = 1 - 62113250430021x^{66} + 2459871055211724056x^{132} - 62113250430021x^{198} + x^{264}$
$Q_{3,23}(x) = 1 + 263115950893197x^{69} - 16860207021391288806x^{138} - 263115950893197x^{207} + x^{276}$
$Q_{3,24}(x) = 1 - 1114577054323204x^{72} + 115561578135588480006x^{144} - 1114577054323204x^{216} + x^{288}$
$Q_{3,25}(x) = 1 + 4721424167667603x^{75} - 792070839820228500006x^{150} - 4721424167667603x^{225} + x^{300}$
$Q_{3,26}(x) = 1 - 20000273725832421x^{78} + 5428934300887448551256x^{156} - 20000273725832421x^{234} + x^{312}$
$Q_{3,27}(x) = 1 + 84722519069640072x^{81} - 37210469265655098336306x^{162} - 84722519069640072x^{243} + x^{324}$
$Q_{3,28}(x) = 1 - 358890350006588729x^{84} + 255044350560627241339056x^{168} - 358890350006588729x^{252} + x^{336}$
$Q_{3,29}(x) = 1 + 1520283919092441753x^{87} - 1748099984653685399451006x^{174} - 1520283919092441753x^{261} + x^{348}$
$Q_{3,30}(x) = 1 - 6440026026382104996x^{90} + 11981655542028392128040006x^{180} - 6440026026382104996x^{270} + x^{360}$
$Q_{3,31}(x) = 1 + 27280388024611559247x^{93} - 82123488809510444968749006x^{186} - 27280388024611559247x^{279} + x^{372}$
$Q_{3,32}(x) = 1 - 115561578124843393729x^{96} + 562882766124635344664221056x^{192} - 115561578124843393729x^{288} + x^{384}$
$Q_{3,33}(x) = 1 + 489526700523960779928x^{99} - 3858055874062699716175824306x^{198} - 489526700523960779928x^{297} + x^{396}$
$Q_{3,34}(x) = 1 - 2073668380220725919421x^{102} + 26443508352314883801070453256x^{204} - 2073668380220725919421x^{306} + x^{408}$
$Q_{3,35}(x) = 1 + 8784200221406800697397x^{105} - 181246502592139860745310610006x^{210} - 8784200221406800697397x^{315} + x^{420}$
$Q_{3,36}(x) = 1 - 37210469265848031875204x^{108} + 1242282009792668398721620128006x^{216} - 37210469265848031875204x^{324} + x^{432}$
$Q_{3,37}(x) = 1 + 157626077284798761271803x^{111} - 8514727565956527784535488090806x^{222} - 157626077284798761271803x^{333} + x^{444}$
$Q_{3,38}(x) = 1 - 667714778405043347055021x^{114} + 58360810951903055273032906782056x^{228} - 667714778405043347055021x^{342} + x^{456}$
$Q_{3,39}(x) = 1 + 2828485190904971712472872x^{117} - 400010949097364782732447070755506x^{234} - 2828485190904971712472872x^{351} + x^{468}$
$Q_{3,40}(x) = 1 - 11981655542024930904058129x^{120} + 2741715832729650623856833844116256x^{240} - 11981655542024930904058129x^{360} + x^{480}$

$Q_{4,d}$
$Q_{4,1}(x) = 1 - 5x^4 - 15x^8 + 15x^{12} + 5x^{16} - x^{20}$
$Q_{4,2}(x) = 1 - 55x^8 + 385x^{16} - 385x^{24} + 55x^{32} - x^{40}$
$Q_{4,3}(x) = 1 - 305x^{12} - 5490x^{24} + 5490x^{36} + 305x^{48} - x^{60}$
$Q_{4,4}(x) = 1 - 2255x^{16} + 105985x^{32} - 105985x^{48} + 2255x^{64} - x^{80}$
$Q_{4,5}(x) = 1 - 15005x^{20} - 1845615x^{40} + 1845615x^{60} + 15005x^{80} - x^{100}$
$Q_{4,6}(x) = 1 - 104005x^{24} + 33489610x^{48} - 33489610x^{72} + 104005x^{96} - x^{120}$
$Q_{4,7}(x) = 1 - 709805x^{28} - 598365615x^{56} + 598365615x^{84} + 709805x^{112} - x^{140}$
$Q_{4,8}(x) = 1 - 4873055x^{32} + 10754832385x^{64} - 10754832385x^{96} + 4873055x^{128} - x^{160}$
$Q_{4,9}(x) = 1 - 33379505x^{36} - 192866779890x^{72} + 192866779890x^{108} + 33379505x^{144} - x^{180}$
$Q_{4,10}(x) = 1 - 228841255x^{40} + 3461681664385x^{80} - 3461681664385x^{120} + 228841255x^{160} - x^{200}$
$Q_{4,11}(x) = 1 - 1568358005x^{44} - 62111682072015x^{88} + 62111682072015x^{132} + 1568358005x^{176} - x^{220}$
$Q_{4,12}(x) = 1 - 10750060805x^{48} + 1114587804384010x^{96} - 1114587804384010x^{144} + 10750060805x^{192} - x^{240}$
$Q_{4,13}(x) = 1 - 73681030805x^{52} - 20000200044801615x^{104} + 20000200044801615x^{156} + 73681030805x^{208} - x^{260}$
$Q_{4,14}(x) = 1 - 505019869255x^{56} + 358890855026457985x^{112} - 358890855026457985x^{168} + 505019869255x^{224} - x^{280}$
$Q_{4,15}(x) = 1 - 3461450947505x^{60} - 6440022564931157490x^{120} + 6440022564931157490x^{180} + 3461450947505x^{240} - x^{300}$
$Q_{4,16}(x) = 1 - 23725155368255x^{64} + 115561601849998761985x^{128} - 115561601849998761985x^{192} + 23725155368255x^{256} - x^{320}$
$Q_{4,17}(x) = 1 - 162614587921805x^{68} - 2073668217606137997615x^{136} + 2073668217606137997615x^{204} + 162614587921805x^{272} - x^{340}$
$Q_{4,18}(x) = 1 - 1114577087604805x^{72} + 37210470380425119480010x^{144} - 37210470380425119480010x^{216} + 1114577087604805x^{288} - x^{360}$
$Q_{4,19}(x) = 1 - 7639424691459005x^{76} - 667714770765618655596015x^{152} + 667714770765618655596015x^{228} + 7639424691459005x^{304} - x^{380}$
$Q_{4,20}(x) = 1 - 52361396626646255x^{80} + 11981655594386327530704385x^{160} - 11981655594386327530704385x^{240} + 52361396626646255x^{320} - x^{400}$
$Q_{4,21}(x) = 1 - 358890349406803505x^{84} - 215002084619153360086795890x^{168} + 215002084619153360086795890x^{252} + 358890349406803505x^{336} - x^{420}$
$Q_{4,22}(x) = 1 - 2459871055211724055x^{88} + 3858055876522632886206336385x^{176} - 3858055876522632886206336385x^{264} + 2459871055211724055x^{352} - x^{440}$
$Q_{4,23}(x) = 1 - 16860207021391288805x^{92} - 69230003631291462203492169615x^{184} + 69230003631291462203492169615x^{276} + 16860207021391288805x^{368} - x^{460}$
$Q_{4,24}(x) = 1 - 115561578135588480005x^{96} + 1242282009908228862290904345610x^{192} - 1242282009908228862290904345610x^{288} + 115561578135588480005x^{384} - x^{480}$
$Q_{4,25}(x) = 1 - 792070839820228500005x^{100} - 22291846171827788605589324265615x^{200} + 22291846171827788605589324265615x^{300} + 792070839820228500005x^{400} - x^{500}$
$Q_{4,26}(x) = 1 - 5428934300887448551255x^{104} + 400010949102793737033681926169985x^{208} - 400010949102793737033681926169985x^{312} + 5428934300887448551255x^{416} - x^{520}$
$Q_{4,27}(x) = 1 - 37210469265655098336305x^{108} - 7177905237542736120478130726501490x^{216} + 7177905237542736120478130726501490x^{324} + 37210469265655098336305x^{432} - x^{540}$
$Q_{4,28}(x) = 1 - 255044350560627241339055x^{112} + 128802283327596718163213084108496385x^{224} - 128802283327596718163213084108496385x^{336} + 255044350560627241339055x^{448} - x^{560}$
$Q_{4,29}(x) = 1 - 1748099984653685399451005x^{116} - 2311263194652822082053339177097164015x^{232} + 2311263194652822082053339177097164015x^{348} + 1748099984653685399451005x^{464} - x^{580}$
$Q_{4,30}(x) = 1 - 11981655542028392128040005x^{120} + 41473935220466903258413227627840120010x^{240} - 41473935220466903258413227627840120010x^{360} + 11981655542028392128040005x^{480} - x^{600}$
$Q_{4,31}(x) = 1 - 82123488809510444968749005x^{124} - 744219570773451895180834031013559956015x^{248} + 744219570773451895180834031013559956015x^{372} + 82123488809510444968749005x^{496} - x^{620}$
$Q_{4,32}(x) = 1 - 562882766124635344664221055x^{128} + 13354478338703720297216837046429452304385x^{256} - 13354478338703720297216837046429452304385x^{384} + 562882766124635344664221055x^{512} - x^{640}$

$Q_{5,d}$
$Q_{5,1}(x) = 1 + 8x^5 - 40x^{10} - 60x^{15} + 40x^{20} + 8x^{25} - x^{30}$
$Q_{5,2}(x) = 1 - 144x^{10} + 2640x^{20} - 6930x^{30} + 2640x^{40} - 144x^{50} + x^{60}$
$Q_{5,3}(x) = 1 + 1292x^{15} - 98515x^{30} - 417240x^{45} + 98515x^{60} + 1292x^{75} - x^{90}$
$Q_{5,4}(x) = 1 - 15456x^{20} + 4979040x^{40} - 34127170x^{60} + 4979040x^{80} - 15456x^{100} + x^{120}$
$Q_{5,5}(x) = 1 + 166408x^{25} - 226995640x^{50} - 2517418860x^{75} + 226995640x^{100} + 166408x^{125} - x^{150}$
$Q_{5,6}(x) = 1 - 1866294x^{30} + 10783550415x^{60} - 193502966580x^{90} + 10783550415x^{120} - 1866294x^{150} + x^{180}$
$Q_{5,7}(x) = 1 + 20608792x^{35} - 504421503640x^{70} - 14645596792740x^{105} + 504421503640x^{140} + 20608792x^{175} - x^{210}$
$Q_{5,8}(x) = 1 - 228929856x^{40} + 23735910200640x^{80} - 1115082531341570x^{120} + 23735910200640x^{160} - 228929856x^{200} + x^{240}$
$Q_{5,9}(x) = 1 + 2537281508x^{45} - 1114384220824915x^{90} - 84707861194807560x^{135} + 1114384220824915x^{180} + 2537281508x^{225} - x^{270}$
$Q_{5,10}(x) = 1 - 28145613744x^{50} + 52364858308310640x^{100} - 6440451813224963730x^{150} + 52364858308310640x^{200} - 28145613744x^{250} + x^{300}$
$Q_{5,11}(x) = 1 + 312111123992x^{55} - 2459808943529652040x^{110} - 489514340299236329940x^{165} + 2459808943529652040x^{220} + 312111123992x^{275} - x^{330}$
$Q_{5,12}(x) = 1 - 3461486193606x^{60} + 115562692723392864015x^{120} - 37210828163121010140820x^{180} + 115562692723392864015x^{240} - 3461486193606x^{300} + x^{360}$
$Q_{5,13}(x) = 1 + 38387958471208x^{65} - 5428914300687403749640x^{130} - 2828474770800748512253260x^{195} + 5428914300687403749640x^{260} + 38387958471208x^{325} - x^{390}$
$Q_{5,14}(x) = 1 - 425731150706544x^{70} + 255044709451482267797040x^{140} - 215002387523034496198605330x^{210} + 255044709451482267797040x^{280} - 425731150706544x^{350} + x^{420}$
$Q_{5,15}(x) = 1 + 4721421630116092x^{75} - 11981649102005827196882515x^{150} - 16342978159331448281738963640x^{225} + 11981649102005827196882515x^{300} + 4721421630116092x^{375} - x^{450}$
$Q_{5,16}(x) = 1 - 52361407147779456x^{80} + 562882881686237194662983040x^{160} - 1242282264837122567091833607170x^{240} + 562882881686237194662983040x^{320} - 52361407147779456x^{400} + x^{480}$
$Q_{5,17}(x) = 1 + 580696739006311208x^{85} - 26443506278646666194932455640x^{170} - 94429768326117030750316057339260x^{255} + 26443506278646666194932455640x^{340} + 580696739006311208x^{425} - x^{510}$
$Q_{5,18}(x) = 1 - 6440026219280403894x^{90} + 1242282047003138779146739608015x^{180} - 7177905452582044447839933280176180x^{270} + 1242282047003138779146739608015x^{360} - 6440026219280403894x^{450} + x^{540}$
$Q_{5,19}(x) = 1 + 71420982257588391992x^{95} - 58360810284188284507414251186040x^{190} - 545615221589341735168566085955669940x^{285} + 58360810284188284507414251186040x^{380} + 71420982257588391992x^{475} - x^{570}$
$Q_{5,20}(x) = 1 - 792070843309825076256x^{100} + 2741715844711306218243161374820640x^{200} - 41473935401701425779153172331224488770x^{300} + 2741715844711306218243161374820640x^{400} - 792070843309825076256x^{500} + x^{600}$
$Q_{5,21}(x) = 1 + 8784200206743871959508x^{105} - 128802283112339589552388941767080915x^{210} - 3152564686720014825806869572256411267560x^{315} + 128802283112339589552388941767080915x^{420} + 8784200206743871959508x^{525} - x^{630}$
$Q_{5,22}(x) = 1 - 97418273337436657320144x^{110} + 6050965604410384897605650239259306640x^{220} - 239636390678673886319369009632506688758930x^{330} + 6050965604410384897605650239259306640x^{440} - 97418273337436657320144x^{550} + x^{660}$
$Q_{5,23}(x) = 1 + 1080385205986848346228792x^{115} - 284266580873402118587043968942410497640x^{230} - 18215518240222923760709101298122029410368740x^{345} + 284266580873402118587043968942410497640x^{460} + 1080385205986848346228792x^{575} - x^{690}$
$Q_{5,24}(x) = 1 - 11981655543139507729555206x^{120} + 13354478339945439424474502827775380454415x^{240} - 1384619023113420767069042072833615536696998420x^{360} + 13354478339945439424474502827775380454415x^{480} - 11981655543139507729555206x^{600} + x^{720}$
$Q_{5,25}(x) = 1 + 132878596163802777557006408x^{125} - 627376215315813920185946289216041609265640x^{250} - 105249261261335961470079415665593708393526208860x^{375} + 627376215315813920185946289216041609265640x^{500} + 132878596163802777557006408x^{625} - x^{750}$
$Q_{5,26}(x) = 1 - 1473646213415791423372478544x^{130} + 29473327642952278810471926287090916435905040x^{260} - 8000328475277315245095095092998621698723110845330x^{390} + 29473327642952278810471926287090916435905040x^{520} - 1473646213415791423372478544x^{650} + x^{780}$
$Q_{5,27}(x) = 1 + 16342986943437504328768141292x^{135} - 1384619022977440578480231562282357709607554515x^{270} - 608130213370936376522797685942662465199888432121241384619022977440578480231562282357709607554515x^{405} + 16342986943437504328768141292x^{540} + 16342986943437504328768141292x^{675} - x^{810}$

$Q_{6,d}$
$Q_{6,1}(x) = 1 - 13x^6 - 104x^{12} + 260x^{18} + 260x^{24} - 104x^{30} - 13x^{36} + x^{42}$
$Q_{6,2}(x) = 1 - 377x^{12} + 18096x^{24} - 124410x^{36} + 124410x^{48} - 18096x^{60} + 377x^{72} - x^{84}$
$Q_{6,3}(x) = 1 - 5473x^{18} - 1767779x^{36} + 31716035x^{54} + 31716035x^{72} - 1767779x^{90} - 5473x^{108} + x^{126}$
$Q_{6,4}(x) = 1 - 105937x^{24} + 233908896x^{48} - 10988845010x^{72} + 10988845010x^{96} - 233908896x^{120} + 105937x^{144} - x^{168}$
$Q_{6,5}(x) = 1 - 1845493x^{30} - 27918618104x^{60} + 3433761185660x^{90} + 3433761185660x^{120} - 27918618104x^{150} - 1845493x^{180} + x^{210}$
$Q_{6,6}(x) = 1 - 33489287x^{36} + 3472269744021x^{72} - 1118060107513635x^{108} + 1118060107513635x^{144} - 3472269744021x^{180} + 33489287x^{216} - x^{252}$
$Q_{6,7}(x) = 1 - 598364773x^{42} - 425226729202904x^{84} + 358465627698179660x^{126} + 358465627698179660x^{168} - 425226729202904x^{210} - 598364773x^{252} + x^{294}$
$Q_{6,8}(x) = 1 - 10754830177x^{48} + 52385143057980096x^{96} - 115613987003806701410x^{144} + 115613987003806701410x^{192} - 52385143057980096x^{240} + 10754830177x^{288} - x^{336}$
$Q_{6,9}(x) = 1 - 192866774113x^{54} - 6438911835059578979x^{108} + 37204031468397159741635x^{162} + 37204031468397159741635x^{216} - 6438911835059578979x^{270} - 192866774113x^{324} + x^{378}$
$Q_{6,10}(x) = 1 - 3461681649257x^{60} + 792123208168133386896x^{120} - 11982447717597957116914410x^{180} + 11982447717597957116914410x^{240} - 792123208168133386896x^{300} + 3461681649257x^{360} - x^{420}$
$Q_{6,11}(x) = 1 - 62111682032413x^{66} - 97415813528493127668104x^{132} + 3857958460709042279828238260x^{198} + 3857958460709042279828238260x^{264} - 97415813528493127668104x^{330} - 62111682032413x^{396} + x^{462}$
$Q_{6,12}(x) = 1 - 1114587804280327x^{72} + 11981771105832231122419221x^{144} - 1242293991679335809099081088035x^{216} + 1242293991679335809099081088035x^{288} - 11981771105832231122419221x^{360} + 1114587804280327x^{432} - x^{504}$
$Q_{6,13}(x) = 1 - 20000200044530173x^{78} - 1473640784501490735968728904x^{156} + 400009475462009215542672231608660x^{234} + 400009475462009215542672231608660x^{312} - 1473640784501490735968728904x^{390} - 20000200044530173x^{468} + x^{546}$
$Q_{6,14}(x) = 1 - 358890855025747337x^{84} + 181246757637208628308136626896x^{168} - 128802464574354355730731742251712010x^{252} + 128802464574354355730731742251712010x^{336} - 181246757637208628308136626896x^{420} + 358890855025747337x^{504} - x^{588}$
$Q_{6,15}(x) = 1 - 6440022564929296993x^{90} - 22291834190977197465580594234979x^{180} + 41473912928632712274775736020863780035x^{270} + 41473912928632712274775736020863780035x^{360} - 22291834190977197465580594234979x^{450} - 6440022564929296993x^{540} + x^{630}$
$Q_{6,16}(x) = 1 - 115561601849993891137x^{96} + 2741716395612647819310756952672896x^{192} - 13354481080420115909980217935311248371010x^{288} + 13354481080420115909980217935311248371010x^{384} - 2741716395612647819310756952672896x^{480} + 115561601849993891137x^{576} - x^{672}$
$Q_{6,17}(x) = 1 - 2073668217606125245573x^{102} - 337208729136070195456207450278874904x^{204} + 4300100213918493539967609707992773709727660x^{306} + 4300100213918493539967609707992773709727660x^{408} - 337208729136070195456207450278874904x^{510} - 2073668217606125245573x^{612} + x^{714}$
$Q_{6,18}(x) = 1 - 37210470380425086094727x^{108} + 41473936462737005816479240769030755221x^{216} - 1384619064458556188736789907551589908072544035x^{324} + 1384619064458556188736789907551589908072544035x^{432} - 41473936462737005816479240769030755221x^{540} + 37210470380425086094727x^{648} - x^{756}$
$Q_{6,19}(x) = 1 - 667714770765618568192213x^{114} - 5100956764999566166279216484438500914104x^{228} + 445843020199539317922122928697160026478846559260x^{342} + 445843020199539317922122928697160026478846559260x^{456} - 5100956764999566166279216484438500914104x^{570} - 667714770765618568192213x^{684} + x^{798}$
$Q_{6,20}(x) = 1 - 11981655594386327301878257x^{120} + 627376218079821623049943767249874840156896x^{240} - 143560070155112956111656727097927677051012511079410x^{360} + 143560070155112956111656727097927677051012511079410x^{480} - 627376218079821623049943767249874840156896x^{600} + 11981655594386327301878257x^{720} - x^{840}$
$Q_{6,21}(x) = 1 - 215002084619153359487721313x^{126} - 77162173400961365988788529561827213358682979x^{252} + 46225896467743754995234757751150488580226667025405635x^{378} + 46225896467743754995234757751150488580226667025405635x^{504} - 77162173400961365988788529561827213358682979x^{630} - 215002084619153359487721313x^{756} + x^{882}$
$Q_{6,22}(x) = 1 - 3858055876522632884637938777x^{132} + 9490319973996556315495585988410641100448874096x^{264} - 14884595136880501145413048482733650214196843403389314884595136880501145413048482733650214196843403389320410x^{528} - 9490319973996556315495585988410641100448874096x^{660} + 3858055876522632884637938777x^{792} - x^{924}$

$Q_{7,d}$
$Q_{7,1}(x) = 1 + 21x^7 - 273x^{14} - 1092x^{21} + 1820x^{28} + 1092x^{35} - 273x^{42} - 21x^{49} + x^{56}$
$Q_{7,2}(x) = 1 - 987x^{14} + 124033x^{28} - 2232594x^{42} + 5847270x^{56} - 2232594x^{70} + 124033x^{84} - 987x^{98} + x^{112}$
$Q_{7,3}(x) = 1 + 23184x^{21} - 31721508x^{42} - 2410834608x^{63} + 10212563270x^{84} + 2410834608x^{105} - 31721508x^{126} - 23184x^{147} + x^{168}$
$Q_{7,4}(x) = 1 - 726103x^{28} + 10988739073x^{56} - 3538373981506x^{84} + 24252380937070x^{112} - 3538373981506x^{140} + 10988739073x^{168} - 726103x^{196} + x^{224}$
$Q_{7,5}(x) = 1 + 20466831x^{35} - 3433763031153x^{70} - 4683652774492692x^{105} + 51942505455478820x^{140} + 4683652774492692x^{175} - 3433763031153x^{210} - 20466831x^{245} + x^{280}$
$Q_{7,6}(x) = 1 - 600940872x^{42} + 1118060074024348x^{84} - 6460151107712682744x^{126} + 115922708067228704070x^{168} - 6460151107712682744x^{210} + 1118060074024348x^{252} - 600940872x^{294} + x^{336}$
$Q_{7,7}(x) = 1 + 17373187209x^{49} - 358465628296544433x^{98} - 8773804718186221542108x^{147} + 254742522926828280840020x^{196} + 8773804718186221542108x^{245} - 358465628296544433x^{294} - 17373187209x^{343} + x^{392}$
$Q_{7,8}(x) = 1 - 505248088463x^{56} + 115613986993051871233x^{112} - 11987089399413604113179906x^{168} + 563138041755530860142794270x^{224} - 11987089399413604113179906x^{280} + 115613986993051871233x^{336} - 505248088463x^{392} + x^{448}$
$Q_{7,9}(x) = 1 + 14660412114096x^{63} - 37204031468590026515748x^{126} - 16340159437130614005822584592x^{189} + 1242067082109313265973531616070x^{252} + 16340159437130614005822584592x^{315} - 37204031468590026515748x^{378} - 14660412114096x^{441} + x^{504}$
$Q_{7,10}(x) = 1 - 425758697244867x^{70} + 11982447717594495435265153x^{140} - 22293320013689123568319946626194x^{210} + 2741897103197930270175610630790070x^{280} - 22293320013689123568319946626194x^{350} + 11982447717594495435265153x^{420} - 425758697244867x^{490} + x^{560}$
$Q_{7,11}(x) = 1 + 12360536835574179x^{77} - 3857958460709104391510270673x^{154} - 30405326788706750693953179186964908x^{231} + 6050812817681465434944433258009843820x^{308} + 30405326788706750693953179186964908x^{385} - 3857958460709104391510270673x^{462} - 12360536835574179x^{539} + x^{616}$
$Q_{7,12}(x) = 1 - 358893811492071688x^{84} + 1242293991679334694511276807708x^{168} - 41474335239120242348642828405391353656x^{252} + 13354607143471084721254299145977357235270x^{336} - 41474335239120242348642828405391353656x^{420} + 1242293991679334694511276807708x^{504} - 358893811492071688x^{588} + x^{672}$
$Q_{7,13}(x) = 1 + 10420142611158691341x^{91} - 400009475462009235542872276138833x^{182} - 56570269641858319799936398926723509507892x^{273} + 29473219063180230976299002823211664482659020x^{364} + 56570269641858319799936398926723509507892x^{455} - 400009475462009235542872276138833x^{546} - 10420142611158691341x^{637} + x^{728}$
$Q_{7,14}(x) = 1 - 30254456505554298547x^{98} + 128802464574354355371840887225964673x^{196} - 77162282110241285066847612598040377120382994x^{294} + 65047712285848361121399713124386790895476770070x^{392} - 77162282110241285066847612598040377120382994x^{490} + 128802464574354355371840887225964673x^{588} - 30254456505554298547x^{686} + x^{784}$
$Q_{7,15}(x) = 1 + 8784195499985191214544x^{105} - 41473912928632712281215758585793077028x^{210} - 105249204694658429220691865731561267999893149808x^{315} + 143559992365646153330035804444235229459686815840070x^{420} + 105249204694658429220691865731561267999893149808x^{525} - 41473912928632712281215758585793077028x^{630} - 8784195499985191214544x^{735} + x^{840}$
$Q_{7,16}(x) = 1 - 255044402921529369959903x^{112} + 13354481080420115909864656333461254479873x^{224} - 143560099001076479777315072407974219506965162005506x^{336} + 316837073447741683750195761983479926838830019978971070x^{448} - 143560099001076479777315072407974219506965162005506x^{560} + 13354481080420115909864656333461254479873x^{672} - 255044402921529369959903x^{784} + x^{896}$
$Q_{7,17}(x) = 1 + 7405069785768212258252391x^{119} - 4300100213918493539969683376210379834973233x^{238} - 195816024729436308108446114214906344693792610962597892x^{357} - 699259079143879888452751982047915598599686125814854508020x^{476} + 195816024729436308108446114214906344693792610962597892x^{595} - 4300100213918493539969683376210379834973233x^{714} - 7405069785768212258252391x^{833} + x^{952}$
$Q_{7,18}(x) = 1 - 215002091418069928174928712x^{126} + 1384619064458556188736752697081209482986449308x^{252} - 26709323023646693280180419662944112948932442892556971543264638080408008203790448239661026841167068615473901651270x^{504} - 267093230236466932801804196629441129489324428925569796344x^{630} + 1384619064458556188736752697081209482986449308x^{756} - 215002091418069928174928712x^{882} + x^{1008}$

$Q_{8,d}$
$Q_{8,1}(x) = 1 - 34x^8 - 714x^{16} + 4641x^{24} + 12376x^{32} - 12376x^{40} - 4641x^{48} + 714x^{56} + 34x^{64} - x^{72}$
$Q_{8,2}(x) = 1 - 2584x^{16} + 850136x^{32} - 40062659x^{48} + 274715376x^{64} - 274715376x^{80} + 40062659x^{96} - 850136x^{112} + 2584x^{128} - x^{144}$
$Q_{8,3}(x) = 1 - 98209x^{24} - 569219364x^{48} + 183255151716x^{72} + 3288411889126x^{96} - 3288411889126x^{120} - 183255151716x^{144} + 569219364x^{168} + 98209x^{192} - x^{216}$
$Q_{8,4}(x) = 1 - 4976784x^{32} + 516236827536x^{64} - 1139345433305859x^{96} + 53524993973177376x^{128} - 53524993973177376x^{160} + 1139345433305859x^{192} - 516236827536x^{224} + 4976784x^{256} - x^{288}$
$Q_{8,5}(x) = 1 - 226980634x^{40} - 422324934213714x^{80} + 6388505818171063041x^{120} + 785734276563348306376x^{160} - 785734276563348306376x^{200} - 6388505818171063041x^{240} + 422324934213714x^{280} + 226980634x^{320} - x^{360}$
$Q_{8,6}(x) = 1 - 10783446409x^{48} + 360011871566096036x^{96} - 37326751982303806870484x^{144} + 12019098216711818657616126x^{192} - 12019098216711818657616126x^{240} + 37326751982303806870484x^{288} - 360011871566096036x^{336} + 10783446409x^{384} - x^{432}$
$Q_{8,7}(x) = 1 - 504420793834x^{56} - 302186099427257754114x^{112} + 214747644640791586761179841x^{168} + 181032009690022846439690310376x^{224} - 181032009690022846439690310376x^{280} - 214747644640791586761179841x^{336} + 302186099427257754114x^{392} + 504420793834x^{448} - x^{504}$
$Q_{8,8}(x) = 1 - 23735905327584x^{64} + 255160016908522421831136x^{128} - 1242845402994387314669667142659x^{192} + 2742959241270686661932088292925376x^{256} - 2742959241270686661932088292925376x^{320} + 1242845402994387314669667142659x^{384} - 255160016908522421831136x^{448} + 23735905327584x^{512} - x^{576}$
$Q_{8,9}(x) = 1 - 1114384187445409x^{72} - 214964887386601338148412964x^{144} + 7176663385462718225281892469660516x^{216} + 41466759799136541000396977306193361126x^{288} - 41466759799136541000396977306193361126x^{360} - 7176663385462718225281892469660516x^{432} + 214964887386601338148412964x^{504} + 1114384187445409x^{576} - x^{648}$
$Q_{8,10}(x) = 1 - 52364858079469384x^{80} + 181258485831928724281122582536x^{160} - 41476677298816604572894529562705419459x^{240} + 627417694757301686158692996113929684631376x^{320} - 627417694757301686158692996113929684631376x^{400} + 41476677298816604572894529562705419459x^{480} - 181258485831928724281122582536x^{560} + 52364858079469384x^{640} - x^{720}$
$Q_{8,11}(x) = 1 - 2459808941961294034x^{88} - 152786728822046847688488121794714x^{176} + 239630339865852346700641729099982595340641x^{264} + 9490080343656537672562007423311281856775832376x^{352} - 9490080343656537672562007423311281856775832376x^{440} - 239630339865852346700641729099982595340641x^{528} - 152786728822046847688488121794714x^{616} + 2459808941961294034x^{704} - x^{792}$
$Q_{8,12}(x) = 1 - 115562692712642803209x^{96} + 128803525633315008690485970854361636x^{192} - 1384632377720565480423791464256906150890483284x^{288} + 143561454173469062999070755867509579085161007424126x^{384} - 143561454173469062999070755867509579085161007424126x^{480} + 1384632377720565480423791464256906150890483284x^{576} - 128803525633315008690485970854361636x^{672} + 115562692712642803209x^{768} - x^{864}$
$Q_{8,13}(x) = 1 - 5428914300613722718834x^{104} - 108579772046360532138962388515984517114x^{208} + 8000299002058251664851696050417579962914459119841x^{312} + 2171625161986224787599558709512662164285720734660480376x^{416} - 2171625161986224787599558709512662164285720734660480376x^{520} - 8000299002058251664851696050417579962914459119841x^{624} + 108579772046360532138962388515984517114x^{728} + 5428914300613722718834x^{832} - x^{936}$
$Q_{8,14}(x) = 1 - 255044709450977247927784x^{112} + 91533085042189952824295402356161980346536x^{224} - 46225961592709747200796970733124167178513410102961859x^{336} + 32850340927909356006719045301925664674140004399431285407376x^{448} - 32850340927909356006719045301925664674140004399431285407376x^{560} + 46225961592709747200796970733124167178513410102961859x^{672} - 91533085042189952824295402356161980346536x^{784} + 255044709450977247927784x^{896} - x^{1008}$
$Q_{8,15}(x) = 1 - 11981649102002365745935009x^{120} - 77162132055873012099586379219885267630204964x^{240} + 2670930786762227748461690587929569785828710506485941149496926138690811560163382236866761765567742469975906952590225126x^{480} - 496926138690811560163382236866761765567742469975906952590225126x^{600} - 267093078676222774846169058792956978582871050648594114916x^{720} + 77162132055873012099586379219885267630204964x^{840} + 11981649102002365745935009x^{960} - x^{1080}$
$Q_{8,16}(x) = 1 - 562882881686213469507614784x^{128} + 65047634107118338602820919060051440242573289536x^{256} - 1543264908691647189435482655589628034671426815573517517007250705666800646804658201503828453347720293610604536267317376x^{512} - 7517007250705666800646804658201503828453347720293610604536267317376x^{640} + 1543264908691647189435482655589628034671426815573511773433859x^{768} - 65047634107118338602820919060051440242573289536x^{896} + 562882881686213469507614784x^{1024} - x^{1152}$

$Q_{9,d}$
$Q_{9,1}(x) = 1 + 55x^9 - 1870x^{18} - 19635x^{27} + 85085x^{36} + 136136x^{45} - 85085x^{54} - 19635x^{63} + 1870x^{72} + 55x^{81} - x^{90}$
$Q_{9,2}(x) = 1 - 6765x^{18} + 5826920x^{36} - 718896255x^{54} + 12905899435x^{72} - 33789991248x^{90} + 12905899435x^{108} - 718896255x^{126} + 5826920x^{144} - 6765x^{162} + x^{180}$
$Q_{9,3}(x) = 1 + 416020x^{27} - 10214227045x^{54} - 13929802341840x^{81} + 1058858447456810x^{108} + 4485393816767864x^{135} - 1058858447456810x^{162} - 13929802341840x^{189} + 10214227045x^{216} + 416020x^{243} - x^{270}$
$Q_{9,4}(x) = 1 - 34111385x^{36} + 24252142155120x^{72} - 366865691151231195x^{108} + 118129637457410270835x^{144} - 809672583832254166752x^{180} + 118129637457410270835x^{216} - 366865691151231195x^{252} + 24252142155120x^{288} - 34111385x^{324} + x^{360}$
$Q_{9,5}(x) = 1 + 2517253805x^{45} - 51942533145255670x^{90} - 8713926619638084013785x^{135} + 11885802349634698138102085x^{180} + 131815567970543875225944136x^{225} - 11885802349634698138102085x^{270} - 8713926619638084013785x^{315} + 51942533145255670x^{360} + 2517253805x^{405} - x^{450}$
$Q_{9,6}(x) = 1 - 193501094490x^{54} + 115922704584208899245x^{108} - 215673966493600288985914680x^{162} + 1246164141189193192051800496210x^{216} - 22361508193995905188857487190748x^{270} + 1246164141189193192051800496210x^{324} - 215673966493600288985914680x^{378} + 115922704584208899245x^{432} - 193501094490x^{486} + x^{540}$
$Q_{9,7}(x) = 1 + 14645576208395x^{63} - 254742523351549990173670x^{126} - 5256163359001819595735486143215x^{189} + 128649854589930923589365400013477685x^{252} + 3735276722584557306050429259972187864x^{315} - 128649854589930923589365400013477685x^{378} - 5256163359001819595735486143215x^{441} + 254742523351549990173670x^{504} + 14645576208395x^{567} - x^{630}$
$Q_{9,8}(x) = 1 - 1115082302307985x^{72} + 563138041703121991929445920x^{144} - 128860697061276976160167329820078995x^{216} + 13360534791465037177285784921463597990435x^{288} - 627660739698829787480478101092155290098752x^{360} + 13360534791465037177285784921463597990435x^{432} - 128860697061276976160167329820078995x^{504} + 563138041703121991929445920x^{576} - 1115082302307985x^{648} + x^{720}$
$Q_{9,9}(x) = 1 + 84707858657965180x^{81} - 1242067082115751063231503590245x^{162} - 3152019265565107854853838899590187739760x^{243} + 1384379469520435535735770294033068324214247210x^{324} + 105231052050324015078367493501950583135650396136x^{405} - 1384379469520435535735770294033068324214247210x^{486} - 3152019265565107854853838899590187739760x^{567} + 1242067082115751063231503590245x^{648} + 84707858657965180x^{729} - x^{810}$
$Q_{9,10}(x) = 1 - 6440451785077489365x^{90} + 2741897103197138094606045870756920x^{180} - 77167275161071401854647437339211746243249255x^{270} + 143569561102581547072366134467294027903413997235835x^{360} - 17657888706251270056881881882979635425646693403787248x^{450} + 143569561102581547072366134467294027903413997235835x^{540} - 77167275161071401854647437339211746243249255x^{630} + 2741897103197138094606045870756920x^{720} - 6440451785077489365x^{810} + x^{900}$
$Q_{9,11}(x) = 1 + 489514339987133086945x^{99} - 6050812817681562848298090695925787870x^{198} - 1888573676029426456734499499566548023110629877365x^{297} + 14884219301228651309500789188014143506034403367451951085x^{396} + 2962034434127745716324847643368349016755001208819371723864x^{495} - 14884219301228651309500789188014143506034403367451951085x^{594} - 1888573676029426456734499499566548023110629877365x^{693} + 6050812817681562848298090695925787870x^{792} + 489514339987133086945x^{891} - x^{990}$
$Q_{9,12}(x) = 1 - 37210828159659490561610x^{108} + 13354607143471072739367631735610646336045x^{216} - 46226342396531554289078518423167384011078741653344120x^{324} + 1543279476736760377220172744277629097360173851824212087897810x^{432} - 496931198669604930127609307414271650002963659438520111660656252x^{540} + 1543279476736760377220172744277629097360173851824212087897810x^{648} - 46226342396531554289078518423167384011078741653344120x^{756} + 13354607143471072739367631735610646336045x^{864} - 37210828159659490561610x^{972} + x^{1080}$
$Q_{9,13}(x) = 1 + 2828474770762360695203855x^{117} - 29473219063180232449934358390401513002836670x^{234} - 11314208775659587903904656126499951287371754060432595470160008169927497363425576989660360954778836521323166074718061684685x^{468} + 83364563648503391313106415896153839656766463839455011041335465052136x^{585} - 160008169927497363425576989660360954778836521323166074718061684685x^{702} - 1131420877565958790390465612649995128737175406043259547035x^{819} + 29473219063180232449934358390401513002836670x^{936} + 2828474770762360695203855x^{1053} - x^{1170}$
$Q_{9,14}(x) = 1 - 215002387522608764448823365x^{126} + 65047712285848360940152700442827601960098804120x^{252} - 27692798433796799603641844395383426007222061771297416590051535365878614076408649308529731034751027761297090795496500879835x^{504} - 1398539376450930712824059534961131861085009079024956721970271508433536316590051535365878614076408649308529731034751027761297090795496500879835x^{756} - 27692798433796799603641844395383426007222061771297490664436055x^{882} + 65047712285848360940152700442827601960098804120x^{1008} - 215002387522608764448823365x^{1134} + x^{1260}$



$Q_{10,d}$
$Q_{10,1}(x) = 1 - 89x^{10} - 4895x^{20} + 83215x^{30} + 582505x^{40} - 1514513x^{50} - 1514513x^{60} + 582505x^{70} + 83215x^{80} - 4895x^{90} - 89x^{100} + x^{110}$
$Q_{10,2}(x) = 1 - 17711x^{20} + 39938305x^{40} - 12900072515x^{60} + 606303408205x^{80} - 4155934270787x^{100} + 4155934270787x^{120} - 606303408205x^{140} + 12900072515x^{160} - 39938305x^{180} + 17711x^{200} - x^{220}$
$Q_{10,3}(x) = 1 - 1762289x^{30} - 183286867445x^{60} + 1058848233229765x^{90} + 340949131099984330x^{120} - 6118080637738407338x^{150} - 6118080637738407338x^{180} + 340949131099984330x^{210} + 1058848233229765x^{240} - 183286867445x^{270} - 1762289x^{300} + x^{330}$
$Q_{10,4}(x) = 1 - 233802911x^{40} + 1139334444463105x^{80} - 118129613205268115715x^{120} + 260712056344026731383005x^{160} - 12247917123244860240585987x^{200} + 12247917123244860240585987x^{240} - 260712056344026731383005x^{280} + 118129613205268115715x^{320} - 1139334444463105x^{360} + 233802911x^{400} - x^{440}$
$Q_{10,5}(x) = 1 - 27916772489x^{50} - 6388509251932233695x^{100} + 11885802297692164992846415x^{150} + 179796531357189379846787719705x^{200} - 22113511499098533834161133568913x^{250} - 22113511499098533834161133568913x^{300} + 179796531357189379846787719705x^{350} + 11885802297692164992846415x^{400} - 6388509251932233695x^{450} - 27916772489x^{500} + x^{550}$
$Q_{10,6}(x) = 1 - 3472236254411x^{60} + 37326750864243699460855x^{120} - 1246164141073270487467591596965x^{180} + 129204790474758830681614831956525130x^{240} - 41603541271901011840594247688561526862x^{300} + 41603541271901011840594247688561526862x^{360} - 129204790474758830681614831956525130x^{420} + 1246164141073270487467591596965x^{480} - 37326750864243699460855x^{540} + 3472236254411x^{600} - x^{660}$
$Q_{10,7}(x) = 1 - 425226130837289x^{70} - 214747644999257214458649695x^{140} + 128649854589676181066013850023304015x^{210} + 91424633214589609046019544477510928347705x^{280} - 77070857348224049851691987637237312002301713x^{350} - 77070857348224049851691987637237312002301713x^{420} + 91424633214589609046019544477510928347705x^{490} + 128649854589676181066013850023304015x^{560} - 214747644999257214458649695x^{630} - 425226130837289x^{700} + x^{770}$
$Q_{10,8}(x) = 1 - 52385132303147711x^{80} + 1242845402878773327665865314305x^{160} - 13360534791464474039244081799471668544515x^{240} + 65077120807400358980629918100711178315045254205x^{320} - 143625176135238363959674496113540090498440241910787x^{400} + 143625176135238363959674496113540090498440241910787x^{400} + 143625176135238363959674496113540090498440241910787x^{400} + 143625176135238363959674496113540090498440241910787x^{400} + 13360534791464474039244081799471668544515x^{640} - 1242845402878773327665865314305x^{720} + 52385132303147711x^{800} - x^{880}$
$Q_{10,9}(x) = 1 - 6438911642192799089x^{90} - 7176663385499922256750289596022645x^{180} + 1384379469520434293668688178282005092710656965x^{270} + 46217898984950103656599969402011015545581427181789130x^{360} - 267047012336097363592222281914017904794195856754564884138x^{450} - 267047012336097363592222281914017904794195856754564884138x^{540} + 46217898984950103656599969402011015545581427181789130x^{630} + 1384379469520434293668688178282005092710656965x^{720} - 7176663385499922256750289596022645x^{810} - 6438911642192799089x^{900} + x^{990}$
$Q_{10,10}(x) = 1 - 792123204706451722511x^{100} + 41476677298804622125176931605817346305x^{200} - 143569561102581544330469031270155933297368126478915x^{300} + 32852466622193584490820036518991672902507087675416266612205x^{400} - 496959260422145611285458474668145232186391441675876493948363587x^{500} + 496959260422145611285458474668145232186391441675876493948363587x^{600} - 32852466622193584490820036518991672902507087675416266612205x^{700} + 143569561102581544330469031270155933297368126478915x^{800} - 41476677298804622125176931605817346305x^{900} + 792123204706451722511x^{1000} - x^{1100}$
$Q_{10,11}(x) = 1 - 97415813466381445596089x^{110} - 239630339865856204659102438142260855220895x^{220} + 14884219301228651303449976370332580657736312671526163215x^{330} + 23344373934110228864168373783436165297728118831025411424297426505x^{440} - 924507240323107657096927990665124615928772375594259554262392717530513x^{550} - 924507240323107657096927990665124615928772375594259554262392717530513x^{660} + 23344373934110228864168373783436165297728118831025411424297426505x^{770} + 14884219301228651303449976370332580657736312671526163215x^{880} - 239630339865856204659102438142260855220895x^{990} - 97415813466381445596089x^{1100} + x^{1210}$
$Q_{10,12}(x) = 1 - 11981771104717643318035211x^{120} + 138463237720564238129799784921097062559456055x^{240} - 15432794767367603772068181371341580246208062200886016590188202182770536161841100244114726245887175023360537736362464640330x^{480} - 1720103893018703712038196101776251499701037876995094995145806987821359987662x^{720} - 16590188202182770536161841100244114726245887175023360537736362464640330x^{480} - 16590188202182770536161841100244114726245887175023360537736362464640330x^{480} + 1543279476736760377206818137134158024620806220088601441561765x^{960} - 138463237720564238129799784921097062559456055x^{1080} + 11981771104717643318035211x^{1200} - x^{1320}$

$Q_{11,d}$
$Q_{11,1}(x) = 1 + 144x^{11} - 12816x^{22} - 352440x^{33} + 3994320x^{44} + 16776144x^{55} - 27261234x^{66} - 16776144x^{77} + 3994320x^{88} + 352440x^{99} - 12816x^{110} - 144x^{121} + x^{132}$
$Q_{11,2}(x) = 1 - 46368x^{22} + 273741216x^{44} - 231482415780x^{66} + 28483360113120x^{88} - 511146844211808x^{110} + 1338210835193414x^{132} - 511146844211808x^{154} + 28483360113120x^{176} - 231482415780x^{198} + 273741216x^{220} - 46368x^{242} + x^{264}$
$Q_{11,3}(x) = 1 + 7465176x^{33} - 3288949386966x^{66} - 80486395527387960x^{99} + 109784561365961724495x^{132} + 8345066461339202035056x^{165} - 35350269924852517598964x^{198} - 8345066461339202035056x^{231} + 109784561365961724495x^{264} + 80486395527387960x^{297} - 3288949386966x^{330} - 7465176x^{363} + x^{396}$
$Q_{11,4}(x) = 1 - 1602508992x^{44} + 53524466747610816x^{88} - 38037368586405216140420x^{132} + 575391390221653790894176320x^{176} - 185274241514019282718241289792x^{220} + 1269888543172273599464436304134x^{264} - 185274241514019282718241289792x^{308} + 575391390221653790894176320x^{352} - 38037368586405216140420x^{396} + 53524466747610816x^{440} - 1602508992x^{484} + x^{528}$
$Q_{11,5}(x) = 1 + 309601751184x^{55} - 785734695454519488816x^{110} - 16212243047978732685809270040x^{165} + 2719782117954401451250192843131120x^{220} + 3709784802732075988596630165796344144x^{275} - 41142143917049824001389120682695498674x^{330} - 3709784802732075988596630165796344144x^{385} + 2719782117954401451250192843131120x^{440} + 16212243047978732685809270040x^{495} - 785734695454519488816x^{550} - 309601751184x^{605} + x^{660}$
$Q_{11,6}(x) = 1 - 62306751484908x^{66} + 12019097855581887017496066x^{132} - 7200336191447390382987648762443580x^{198} + 13396211084757780941657918519448846931695x^{264} - 77403305329266927434881887224484775102421208x^{330} + 1388945957561053956383578006660474748638445084x^{396} - 77403305329266927434881887224484775102421208x^{462} + 13396211084757780941657918519448846931695x^{528} - 7200336191447390382987648762443580x^{594} + 12019097855581887017496066x^{660} - 62306751484908x^{726} + x^{792}$
$Q_{11,7}(x) = 1 + 12346203370489776x^{77} - 181032009991850480238651519216x^{154} - 3148833846193077566773574574260299005960x^{231} + 64970641319919812045136975043243694847488211120x^{308} + 1590221419600816781409341756502466989094584280483056x^{385} - 461711913419855217143533400797591597731590221419600816781409341756502466989094584280483056x^{539} + 64970641319919812045136975043243694847488211120x^{616} + 31488338461930775667735745742602990059181032009991850480238651519216x^{770} - 12346203370489776x^{847} + x^{924}$
$Q_{11,8}(x) = 1 - 2460986135945634432x^{88} + 2742959241015411031036572819225216x^{176} - 1385246968119758900275627912973769290514633220x^{264} + 316980698653350255804932830217055496680503759640117120x^{352} - 32865192794719422419048088288205204964485639172562998712192x^{440} + 1543964485093510085815930970297511616486232208420267599275014x^{528} - 32865192794719422419048088288205204964485639172562998712192x^{616} + 316980698653350255804932830217055496680503759640117120x^{704} - 1385246968119758900275627912973769290514633220x^{792} + 2742959241015411031036572819225216x^{880} - 2460986135945634432x^{968} + x^{1056}$
$Q_{11,9}(x) = 1 + 489441992665310695944x^{99} - 41466759799351468683752110054315252566x^{198} - 608025000534404842782027630509023518930622911430440x^{297} + 1542997591060071582125351619243215452407441518421402658927695x^{396} + 677690713987460847398408622810517564182973797359870977223414328144x^{495} - 51513409702861122483544478491216556902402879442734689072968571511284x^{594} - 677690713987460847398408622810517564182973797359870977223414328144x^{693} + 1542997591060071582125351619243215452407441518421402658927695x^{792} + 608025000534404842782027630509023518930622911430440x^{891} - 41466759799351468683752110054315252566x^{990} - 489441992665310695944x^{1089} + x^{1188}$
$Q_{11,10}(x) = 1 - 97424713727108484379488x^{110} + 627417694757120415690413349795153126798816x^{220} - 267110881292153590788587900338207926156988044616602639780x^{330} + 7517502699553330039712054908057882125062514192659004104302154601120x^{440} - 13986298737509530845958208102299344772067503774737589232235113355210194208x^{550} + 1720201027450833110089771017930019099052732925640503698722109898213999023174x^{660} - 13986298737509530845958208102299344772067503774737589232235113355210194208x^{770} + 7517502699553330039712054908057882125062514192659004104302154601120x^{880} - 267110881292153590788587900338207926156988044616602639780x^{990} + 627417694757120415690413349795153126798816x^{1100} - 97424713727108484379488x^{1210} + x^{1320}$
$Q_{11,11}(x) = 1 + 19386236394149894806708656x^{121} - 9490080343656690455432871009449865953387316816x^{242} - 117305449619967930311820769396416387848927873515264436613260215171658609899786185794166586763247740859311976322232715174210320x^{484} + 28855627995477466079742313080941401459941950938793671350610185727116957424149705943534434642807784648983809834443060059595593548191118166976590077824434x^{726} - 28855627995477466079742313080941401459941950938793671350610185727116957424149705943534434642807784648983809834443060059595593548191118166976590077824434x^{968} + 117305449619967930311820769396416387848927873515264434922195560x^{1089} - 9490080343656690455432871009449865953387316816x^{1210} - 19386236394149894806708656x^{1331} + x^{1452}$

$Q_{12,d}$
$Q_{12,1}(x) = 1 - 233x^{12} - 33552x^{24} + 1493064x^{36} + 27372840x^{48} - 186135312x^{60} - 488605194x^{72} + 488605194x^{84} + 186135312x^{96} - 27372840x^{108} - 1493064x^{120} + 33552x^{132} + 233x^{144} - x^{156}$
$Q_{12,2}(x) = 1 - 121393x^{24} + 1876250208x^{48} - 4153783429236x^{72} + 1338111661846740x^{96} - 62866918803854112x^{120} + 430900339301416726x^{144} - 430900339301416726x^{168} + 62866918803854112x^{192} - 1338111661846740x^{216} + 4153783429236x^{240} - 1876250208x^{264} + 121393x^{288} - x^{312}$
$Q_{12,3}(x) = 1 - 31622993x^{36} - 59017802097942x^{72} + 6118024908316477014x^{108} + 35350287810525288435615x^{144} - 11382676772406157547453487x^{180} - 204253853166768077848422324x^{216} + 204253853166768077848422324x^{252} + 11382676772406157547453487x^{288} - 35350287810525288435615x^{324} - 6118024908316477014x^{360} + 59017802097942x^{396} + 31622993x^{432} - x^{468}$
$Q_{12,4}(x) = 1 - 10983760033x^{48} + 2514510602693245248x^{96} - 12247914555209274562902436x^{144} + 1269888537507134711811160218340x^{192} - 2802643439134770696047181018213312x^{240} + 131664583921200466272770851376018406x^{288} - 131664583921200466272770851376018406x^{336} + 2802643439134770696047181018213312x^{384} - 1269888537507134711811160218340x^{432} + 12247914555209274562902436x^{480} - 2514510602693245248x^{528} + 10983760033x^{576} - x^{624}$
$Q_{12,5}(x) = 1 - 3433536035513x^{60} - 96638979031653964890672x^{120} + 22113511403245289075636753953464x^{180} + 41142143918499699389483778039324498840x^{240} - 622357208313249323307860104770486616356912x^{300} - 76544876473361070146906000528699601970691034x^{360} + 76544876473361070146906000528699601970691034x^{420} + 622357208313249323307860104770486616356912x^{480} - 41142143918499699389483778039324498840x^{540} - 22113511403245289075636753953464x^{600} + 96638979031653964890672x^{660} + 3433536035513x^{720} - x^{780}$
$Q_{12,6}(x) = 1 - 1118049290473933x^{72} + 3870112182746503375934272398x^{144} - 41603541268018880559632150554043662686x^{216} + 1388945957560651453118254804002744759314936715x^{288} - 144008694758448856418717144546612151348283482711687x^{360} + 46370352475935777076744970495104817824540748565851956x^{504} + 144008694758448856418717144546612151348283482711687x^{576} - 46370352475935777076744970495104817824540748565851956x^{648} + 41603541268018880559632150554043662686x^{720} - 3870112182746503375934272398x^{792} + 1118049290473933x^{864} - x^{936}$
$Q_{12,7}(x) = 1 - 358465123875040793x^{84} - 152609769675484955583968772049392x^{168} + 77070857348071621114026192346034154624018264x^{252} + 46171191341985630037225866079762337468548229380797240x^{336} - 32811418613543014316887182168499646843767654316011955504112x^{420} - 27659986968957230025973781769733565522285897850338464731708474x^{504} + 27659986968957230025973781769733565522285897850338464731708474x^{588} + 32811418613543014316887182168499646843767654316011955504112x^{672} - 46171191341985630037225866079762337468548229380797240x^{756} - 77070857348071621114026192346034154624018264x^{840} + 152609769675484955583968772049392x^{924} + 358465123875040793x^{1008} - x^{1092}$
$Q_{12,8}(x) = 1 - 115613963257141670593x^{96} + 6053709802075609266724388546164737408x^{192} - 143625176135232307506913179233702318164798836119236x^{288} + 1543964485093510056315882260906516330324519758281136373660740x^{384} - 7520414780323951340202568947866227665054399284681066959848309674112x^{480} + 16597552012646041582852238216195674496923210677657804668652153589293126x^{576} - 16597552012646041582852238216195674496923210677657804668652153589293126x^{672} - 1543964485093510056315882260906516330324519758281136373660740x^{864} + 143625176135232307506913179233702318164798836119236x^{960} - 6053709802075609266724388546164737408x^{1056} + 115613963257141670593x^{1152} - x^{1248}$
$Q_{12,9}(x) = 1 - 37204030354205805690833x^{108} - 239594930943989400554797435143543933303702x^{216} + 267047012336097124038758097723753853793126221926798425814x^{324} + 51513409702861122491542038207487710688747226480068920272134137373215x^{432} - 171978970971155323795203548800407248352932980161511349016982238475637992068x^{540} - 9936944645068882261195376484861135607864857798947172336277293714374520273752244x^{648} + 9936944645068882261195376484861135607864857798947172336277293714374520273752244x^{756} + 1719789709711553237952035488004072483529329801615113490169822384756379920687x^{864} - 515134097028611224915420382074877106887472264800689202721341373732x^{972} - 267047012336097124038758097723753853793126221926798425814x^{1080} + 239594930943989400554797435143543933303702x^{1188} + 37204030354205805690833x^{1296} - x^{1404}$
$Q_{12,10}(x) = 1 - 11982447665229637126954513x^{120} + 9490947427114283229344260617174349743268343328x^{240} - 49695926042214560179388362985910470116795457922300731720201027450833110087599097628641767722024913895823460482655331319070196340x^{480} - 3936269387729948159877041919461490858680041766339615006970530224755954394676797611752914512191384654544422154862762827560701073812765950735270249688886966x^{720} - 5954394676797611752914512191384654544422154862762827560701073812765950735270249688886966x^{960} - 17202010274508331100875990976286417677220249138958234604826936269387729948159877041919461490858680041766339615006970530224755954394676797611752914512191384654544422154862762827560701073812765950735270249688886966x^{1200} - 9490947427114283229344260617174349743268343328x^{1320} + 11982447665229637126954513x^{1440} - x^{1560}$

$\binom{k}{j}_1$	$j$	0	1	2	3	4	5	6	7	8	9	10	11	12	13
$k$	$F_{1k-1} / F_{1j+1}$	1	1	2	3	5	8	13	21	34	55	89	144	233	377
1	0	1	1												
2	1	1	1												
3	1	1	2	2	1										
4	2	1	3	6	3	1									
5	3	1	5	15	15	5	1								
6	5	1	8	40	60	40	8	1							
7	8	1	13	104	260	260	104	13	1						
8	13	1	21	273	1092	1820	1092	273	21	1					
9	21	1	34	714	4641	12376	12376	4641	714	34	1				
10	34	1	55	1870	19635	85085	136136	85085	19635	1870	55	1			
11	55	1	89	4895	83215	582505	1514513	1514513	582505	83215	4895	89	1		
12	89	1	144	12816	352440	3994320	16776144	27261234	16776144	3994320	352440	12816	144	1	
13	144	1	233	33552	1493064	27372840	186135312	488605194	488605194	186135312	27372840	1493064	33552	233	1
$\binom{k}{j}_2$	$j$	0	1	2	3	4	5	6	7	8	9	10			
$k$	$F_{2k-1} / F_{2j+1}$	1	2	5	13	34	89	233	610	1597	4181	10946			
1	1	1	1												
2	2	1	3	1											
3	5	1	8	8	1										
4	13	1	21	56	21	1									
5	34	1	55	385	385	55	1								
6	89	1	144	2640	6930	2640	144	1							
7	233	1	377	18096	124410	124410	18096	377	1						
8	610	1	987	124033	2232594	5847270	2232594	124033	987	1					
9	1597	1	2584	850136	40062659	274715376	274715376	40062659	850136	2584	1				
10	4181	1	6765	5826920	718896255	12905899435	33789991248	12905899435	718896255	5826920	6765	1			
$\binom{k}{j}_3$	$j$	0	1	2	3	4	5	6	7	8	9				
$k$	$F_{3k-1} / F_{3j+1}$	1	3	13	55	233	987	4181	17711	75025	317811				
1	1	1	1												
2	5	1	4	1											
3	21	1	17	17	1										
4	89	1	72	306	72	1									
5	377	1	305	5490	5490	305	1								
6	1597	1	1292	98515	417240	98515	1292	1							
7	6765	1	5473	1767779	31716035	31716035	1767779	5473	1						
8	28657	1	23184	31721508	2410834608	10212563270	2410834608	31721508	23184	1					
9	121393	1	98209	569219364	183255151716	3288411889126	3288411889126	183255151716	569219364	98209	1				

$\binom{k}{j}_4$	$j$	0	1	2	3	4	5	6	7	8
$k$	$F_{4k-1} / F_{4j+1}$	1	5	34	233	1597	10946	75025	514229	3524578
1	2	1	1							
2	13	1	7	1						
3	89	1	48	48	1					
4	610	1	329	2256	329	1				
5	4181	1	2255	105985	105985	2255	1			
6	28657	1	15456	4979040	34127170	4979040	15456	1		
7	196418	1	105937	233908896	10988845010	10988845010	233908896	105937	1	
8	1346269	1	726103	10988739073	3538373981506	24252380937070	3538373981506	10988739073	726103	1

$\binom{k}{j}_5$	$j$	0	1	2	3	4	5	6	7	8
$k$	$F_{5k-1} / F_{5j+1}$	1	8	89	987	10946	121393	1346269	14930352	165580141
1	3	1	1							
2	34	1	11	1						
3	377	1	122	122	1					
4	4181	1	1353	15006	1353	1				
5	46368	1	15005	1845615	1845615	15005	1			
6	514229	1	166408	226995640	2517418860	226995640	166408	1		
7	5702887	1	1845493	27918618104	3433761185660	3433761185660	27918618104	1845493	1	
8	63245986	1	20466831	3433763031153	4683652774492692	51942505455478820	4683652774492692	3433763031153	20466831	1

$\binom{k}{j}_6$	$j$	0	1	2	3	4	5	6
$k$	$F_{6k-1} / F_{6j+1}$	1	13	233	4181	75025	1346269	24157817
1	5	1	1					
2	89	1	18	1				
3	1597	1	323	323	1			
4	28657	1	5796	104006	5796	1		
5	514229	1	104005	33489610	33489610	104005	1	
6	9227465	1	1866294	10783550415	193502966580	10783550415	1866294	1

$\binom{k}{j}_7$	$j$	0	1	2	3	4	5	6
$k$	$F_{7k-1} / F_{7j+1}$	1	21	610	17711	514229	14930352	433494437
1	8	1	1					
2	233	1	29	1				
3	6765	1	842	842	1			
4	196418	1	24447	709806	24447	1		
5	5702887	1	709805	598365615	598365615	709805	1	
6	165580141	1	20608792	504421503640	14645596792740	504421503640	20608792	1

$\binom{k}{j}_8$	$j$	0	1	2	3	4	5	6
$k$	$F_{8k-1} / F_{8j+1}$	1	34	1597	75025	3524578	165580141	7778742049
1	13	1	1					
2	610	1	47	1				
3	28657	1	2208	2208	1			
4	1346269	1	103729	4873056	103729	1		
5	63245986	1	4873055	10754832385	10754832385	4873055	1	
6	2971215073	1	228929856	23735910200640	1115082531341570	23735910200640	228929856	1

  

$\binom{k}{j}_9$	$j$	0	1	2	3	4	5	6
$k$	$F_{9k-1} / F_{9j+1}$	1	55	4181	317811	24157817	1836311903	139583862445
1	21	1	1					
2	1597	1	76	1				
3	121393	1	5777	5777	1			
4	9227465	1	439128	33379506	439128	1		
5	701408733	1	33379505	192866779890	192866779890	33379505	1	
6	53316291173	1	2537281508	1114384220824915	84707861194807560	1114384220824915	2537281508	1

  

$\binom{k}{j}_{10}$	$j$	0	1	2	3	4	5	6
$k$	$F_{10k-1} / F_{10j+1}$	1	89	10946	1346269	165580141	20365011074	2504730781961
1	34	1	1					
2	4181	1	123	1				
3	514229	1	15128	15128	1			
4	63245986	1	1860621	228841256	1860621	1		
5	7778742049	1	228841255	3461681664385	3461681664385	228841255	1	
6	956722026041	1	28145613744	52364858308310640	6440451813224963730	52364858308310640	28145613744	1

  

$\binom{k}{j}_{11}$	$j$	0	1	2	3	4	5	6
$k$	$F_{11k-1} / F_{11j+1}$	1	144	28657	5702887	1134903170	225851433717	44945570212853
1	55	1	1					
2	10946	1	199	1				
3	2178309	1	39602	39602	1			
4	433494437	1	7880997	1568358006	7880997	1		
5	86267571272	1	1568358005	62111682072015	62111682072015	1568358005	1	
6	17167680177565	1	312111123992	2459808943529652040	489514340299236329940	2459808943529652040	312111123992	1

$\binom{k}{j}_{12}$	$j$	0	1	2	3	4	5	6
$k$	$F_{12k-1} / F_{12j+1}$	1	233	75025	24157817	7778742049	2504730781961	806515533049393
1	89	1	1					
2	28657	1	322	1				
3	9227465	1	103683	103683	1			
4	2971215073	1	33385604	10750060806	33385604	1		
5	956722026041	1	10750060805	1114587804384010	1114587804384010	10750060805	1	
6	308061521170129	1	3461486193606	115562692723392864015	37210828163121010140820	115562692723392864015	3461486193606	1

  

$\binom{k}{j}_{13}$	$j$	0	1	2	3	4	5
$k$	$F_{13k-1} / F_{13j+1}$	1	377	196418	102334155	53316291173	27777890035288
1	144	1	1				
2	75025	1	521	1			
3	39088169	1	271442	271442	1		
4	20365011074	1	141421803	73681030806	141421803	1	
5	10610209857723	1	73681030805	20000200044801615	20000200044801615	73681030805	1