1. Sin polinomios irreducibles de grado 2

1.1. Hasta 0 raices fraccionarias

Polinomios de grado 2

$P_1(x) = -x^2 - 4x - 4$

$P_2(x) = -2x^2 + 2$

$P_3(x) = 2x^2 - 8x + 6$

$P_4(x) = 2x^2 - 2x - 4$

$P_5(x) = x^2 - 5x + 6$

$P_6(x) = x^2 - 5x + 6$

$P_7(x) = -x^2 + 2x - 1$

$P_8(x) = 2x^2 - 10x + 12$

$P_9(x) = -x^2 + 4x - 3$

$P_{10}(x) = -x^2 - 3x - 2$

$P_{11}(x) = x^2 - 4$

$P_{12}(x) = x^2 - 6x + 9$

$P_{13}(x) = x^2 - 2x - 3$

$P_{14}(x) = -2x^2 + 8x - 8$

$P_{15}(x) = 2x^2 + 2x - 4$

$P_{16}(x) = x^2 - x - 2$

$P_{17}(x) = 2x^2 - 2$

$P_{18}(x) = 2x^2 - 2$

$P_{19}(x) = x^2 - x - 6$

$P_{20}(x) = x^2 - 4x + 3$

$P_{21}(x) = x^2 + 3x + 2$

$P_{22}(x) = 2x^2 + 8x + 8$

$P_{23}(x) = -2x^2 + 4x - 2$

$P_{24}(x) = -2x^2 + 2$

$P_{25}(x) = -2x^2 + 2x + 12$

Polinomios de grado 3

$P_{26}(x) = x^3 - 3x^2 - 4x + 12$

$P_{27}(x) = 2x^3 - 4x^2 - 8x + 16$

$P_{28}(x) = -2x^3 - 2x^2 + 16x + 24$

$P_{29}(x) = 2x^3 - 14x - 12$

$P_{30}(x) = x^3 - 6x^2 + 11x - 6$

$P_{31}(x) = x^3 - x^2 - 5x - 3$

$P_{32}(x) = x^3 - 3x + 2$

$P_{33}(x) = x^3 + x^2 - 8x - 12$

$P_{34}(x) = -2x^3 - 4x^2 + 8x + 16$

$P_{35}(x) = x^3 - 2x^2 - 4x + 8$

$P_{36}(x) = 2x^3 - 8x^2 - 6x + 36$

$P_{37}(x) = x^3 - 7x^2 + 15x - 9$

$P_{38}(x) = 2x^3 + 8x^2 + 10x + 4$

$P_{39}(x) = x^3 + 5x^2 + 8x + 4$

$P_{40}(x) = -2x^3 + 4x^2 + 2x - 4$

$P_{41}(x) = x^3 + 2x^2 - x - 2$

$P_{42}(x) = 2x^3 + 4x^2 - 8x - 16$

$P_{43}(x) = x^3 - x^2 - 4x + 4$

$P_{44}(x) = x^3 + x^2 - 4x - 4$

$P_{45}(x) = -x^3 + 6x^2 - 12x + 8$

$P_{46}(x) = x^3 - x^2 - 4x + 4$

$P_{47}(x) = -x^3 + 7x + 6$

$P_{48}(x) = x^3 + x^2 - x - 1$

$P_{49}(x) = -x^3 - 2x^2 + x + 2$

$P_{50}(x) = -x^3 + x^2 + 5x + 3$

Polinomios de grado 4

$P_{51}(x) = -2x^4 - 4x^3 + 6x^2 + 16x + 8$

$P_{52}(x) = -2x^4 + 6x^3 + 4x^2 - 24x + 16$

$P_{53}(x) = 2x^4 - 12x^3 + 10x^2 + 48x - 72$

$P_{54}(x) = -2x^4 - 12x^3 - 26x^2 - 24x - 8$

$P_{55}(x) = x^4 - 5x^3 + 5x^2 + 5x - 6$

$P_{56}(x) = x^4 - 3x^3 - 2x^2 + 12x - 8$

$P_{57}(x) = x^4 - 8x^2 + 16$

$P_{58}(x) = x^4 + 5x^3 + 9x^2 + 7x + 2$

$P_{59}(x) = x^4 - 9x^2 - 4x + 12$

$P_{60}(x) = x^4 + 2x^3 - 3x^2 - 4x + 4$

$P_{61}(x) = x^4 + x^3 - 7x^2 - 13x - 6$

$P_{62}(x) = x^4 - 4x^3 - 2x^2 + 12x + 9$

$P_{63}(x) = -2x^4 + 6x^3 - 2x^2 - 6x + 4$

$P_{64}(x) = -2x^4 + 12x^3 - 18x^2 - 8x + 24$

$P_{65}(x) = -x^4 + 4x^3 + x^2 - 16x + 12$

$P_{66}(x) = -x^4 + 6x^3 - 5x^2 - 24x + 36$

$P_{67}(x) = x^4 + x^3 - 6x^2 - 4x + 8$

$P_{68}(x) = x^4 - 3x^3 + x^2 + 3x - 2$

$P_{69}(x) = -2x^4 + 16x^3 - 46x^2 + 56x - 24$

$P_{70}(x) = x^4 - 2x^3 - 4x^2 + 2x + 3$

$P_{71}(x) = 2x^4 + 2x^3 - 12x^2 - 8x + 16$

$P_{72}(x) = x^4 - 4x^3 + 16x - 16$

$P_{73}(x) = -2x^4 + 4x^3 + 14x^2 - 16x - 24$

$P_{74}(x) = -2x^4 + 20x^3 - 74x^2 + 120x - 72$

$P_{75}(x) = -x^4 - 3x^3 + 6x^2 + 28x + 24$

Polinomios de grado 5

$P_{76}(x) = 2x^5 - 4x^4 - 18x^3 + 28x^2 + 40x - 48$

$P_{77}(x) = -2x^5 + 6x^4 + 4x^3 - 12x^2 - 2x + 6$

$P_{78}(x) = x^5 - 3x^4 - 6x^3 + 10x^2 + 21x + 9$

$P_{79}(x) = x^5 + x^4 - 5x^3 - 5x^2 + 4x + 4$

$P_{80}(x) = 2x^5 - 8x^4 - 8x^3 + 44x^2 + 6x - 36$

$P_{81}(x) = 2x^5 - 10x^4 - 10x^3 + 90x^2 - 216$

$P_{82}(x) = x^5 - x^4 - 9x^3 + x^2 + 20x + 12$

$P_{83}(x) = x^5 + x^4 - 5x^3 - 5x^2 + 4x + 4$

$P_{84}(x) = x^5 - 4x^3 + 2x^2 + 3x - 2$

$P_{85}(x) = x^5 - 7x^3 - 2x^2 + 12x + 8$

$P_{86}(x) = -2x^5 + 12x^4 - 12x^3 - 32x^2 + 30x + 36$

$P_{87}(x) = 2x^5 - 18x^4 + 46x^3 + 18x^2 - 216x + 216$

$P_{88}(x) = x^5 - 6x^4 + 10x^3 - 11x + 6$

$P_{89}(x) = x^5 - x^4 - 8x^3 + 8x^2 + 16x - 16$

$P_{90}(x) = -x^5 + 5x^4 - 3x^3 - 13x^2 + 8x + 12$

$P_{91}(x) = x^5 - x^4 - 5x^3 + 5x^2 + 4x - 4$

$P_{92}(x) = -x^5 - 4x^4 - x^3 + 14x^2 + 20x + 8$

$P_{93}(x) = -2x^5 - 6x^4 + 10x^3 + 54x^2 + 64x + 24$

$P_{94}(x) = x^5 - 9x^4 + 26x^3 - 18x^2 - 27x + 27$

$P_{95}(x) = 2x^5 - 12x^4 + 20x^3 - 22x + 12$

$P_{96}(x) = x^5 - 2x^4 - 6x^3 + 8x^2 + 5x - 6$

$P_{97}(x) = -2x^5 + 14x^4 - 28x^3 + 4x^2 + 30x - 18$

$P_{98}(x) = x^5 - 11x^3 - 6x^2 + 28x + 24$

$P_{99}(x) = 2x^5 - 6x^4 + 4x^3 + 4x^2 - 6x + 2$

$P_{100}(x) = 2x^5 - 16x^3 - 12x^2 + 14x + 12$

Polinomios de grado 6

$P_{101}(x) = x^6 - x^5 - 7x^4 + 9x^3 + 10x^2 - 20x + 8$

$P_{102}(x) = x^6 - 3x^5 - 11x^4 + 27x^3 + 46x^2 - 60x - 72$

$P_{103}(x) = -2x^6 + 20x^5 - 64x^4 + 28x^3 + 234x^2 - 432x + 216$

$P_{104}(x) = x^6 - 2x^5 - 11x^4 + 16x^3 + 40x^2 - 32x - 48$

$P_{105}(x) = x^6 - 6x^5 + 4x^4 + 30x^3 - 41x^2 - 24x + 36$

$P_{106}(x) = x^6 - 9x^5 + 26x^4 - 8x^3 - 96x^2 + 176x - 96$

$P_{107}(x) = -x^6 + 12x^5 - 58x^4 + 144x^3 - 193x^2 + 132x - 36$

$P_{108}(x) = x^6 - 2x^5 - 7x^4 + 12x^3 + 16x^2 - 16x - 16$

$P_{109}(x) = x^6 + 3x^5 - 3x^4 - 15x^3 - 6x^2 + 12x + 8$

$P_{110}(x) = x^6 + 3x^5 - 10x^3 - 15x^2 - 9x - 2$

$P_{111}(x) = -2x^6 + 12x^4 - 18x^2 + 8$

$P_{112}(x) = 2x^6 - 12x^5 + 2x^4 + 96x^3 - 112x^2 - 192x + 288$

$P_{113}(x) = 2x^6 - 12x^5 + 8x^4 + 60x^3 - 82x^2 - 48x + 72$

$P_{114}(x) = -x^6 + 3x^5 + 4x^4 - 10x^3 - 9x^2 + 7x + 6$

$P_{115}(x) = x^6 - 10x^4 - 4x^3 + 21x^2 + 4x - 12$

$P_{116}(x) = x^6 - 9x^5 + 28x^4 - 30x^3 - 11x^2 + 39x - 18$

$P_{117}(x) = x^6 - 6x^5 + 5x^4 + 28x^3 - 48x^2 - 16x + 48$

$P_{118}(x) = x^6 - 5x^5 + 26x^3 - 19x^2 - 21x + 18$

$P_{119}(x) = x^6 - 2x^5 - 12x^4 + 14x^3 + 47x^2 - 12x - 36$

$P_{120}(x) = -2x^6 + 16x^5 - 42x^4 + 32x^3 + 26x^2 - 48x + 18$

$P_{121}(x) = x^6 - 2x^5 - 8x^4 + 10x^3 + 19x^2 - 8x - 12$

$P_{122}(x) = x^6 - 2x^5 - 8x^4 + 14x^3 + 11x^2 - 28x + 12$

$P_{123}(x) = x^6 - 9x^4 + 24x^2 - 16$

$P_{124}(x) = x^6 - 8x^5 + 18x^4 + 4x^3 - 47x^2 + 12x + 36$

$P_{125}(x) = 2x^6 + 6x^5 - 6x^4 - 30x^3 - 12x^2 + 24x + 16$

1.2. Hasta 1 raices fraccionarias

Polinomios de grado 2

$P_{126}(x) = 2x^2 - 3x - 2$

$P_{127}(x) = 2x^2 - 5x - 3$

$P_{128}(x) = 2x^2 + x - 1$

$P_{129}(x) = 2x^2 - 2x - 4$

$P_{130}(x) = 3x^2 - 8x + 4$

$P_{131}(x) = 2x^2 - 3x + 1$

$P_{132}(x) = 3x^2 + x - 2$

$P_{133}(x) = 2x^2 + 3x - 2$

$P_{134}(x) = x^2 - 4x + 4$

$P_{135}(x) = 8x^2 - 11x + 3$

$P_{136}(x) = 2x^2 + x - 6$

$P_{137}(x) = 2x^2 - 5x + 2$

$P_{138}(x) = 3x^2 - 5x - 2$

$P_{139}(x) = 2x^2 + 3x - 2$

$P_{140}(x) = 2x^2 + 6x + 4$

$P_{141}(x) = 3x^2 - 8x - 3$

$P_{142}(x) = 3x^2 - 2x - 1$

$P_{143}(x) = 7x^2 + 4x - 3$

$P_{144}(x) = x^2 - 5x + 6$

$P_{145}(x) = 2x^2 + 3x - 2$

$P_{146}(x) = 3x^2 - 4x - 4$

$P_{147}(x) = 2x^2 - 5x + 2$

$P_{148}(x) = 3x^2 + 7x + 2$

$P_{149}(x) = 2x^2 - 3x + 1$

$P_{150}(x) = 2x^2 - 7x + 3$

Polinomios de grado 3

$P_{151}(x) = 3x^3 - 11x^2 + 12x - 4$

$P_{152}(x) = 2x^3 - x^2 - 8x + 4$

$P_{153}(x) = 2x^3 - 3x^2 - 11x + 6$

$P_{154}(x) = 2x^3 + 5x^2 + x - 2$

$P_{155}(x) = -2x^3 - 4x^2 + 8x + 16$

$P_{156}(x) = -x^3 - x^2 + 8x + 12$

$P_{157}(x) = 3x^3 + 5x^2 - 4x - 4$

$P_{158}(x) = 3x^3 + 8x^2 + 3x - 2$

$P_{159}(x) = x^3 - 3x^2 - x + 3$

$P_{160}(x) = 3x^3 - 4x^2 - 5x + 2$

$P_{161}(x) = 3x^3 - 14x^2 + 17x - 6$

$P_{162}(x) = 3x^3 - 4x^2 - 17x + 6$

$P_{163}(x) = 3x^3 - 7x^2 + 4$

$P_{164}(x) = 3x^3 - 2x^2 - 7x - 2$

$P_{165}(x) = 3x^3 - 7x^2 + 5x - 1$

$P_{166}(x) = 3x^3 + 8x^2 + 3x - 2$

$P_{167}(x) = 3x^3 - 8x^2 - 5x + 6$

$P_{168}(x) = 3x^3 + 2x^2 - 7x + 2$

$P_{169}(x) = 3x^3 - x^2 - 8x - 4$

$P_{170}(x) = 3x^3 - x^2 - 12x + 4$

$P_{171}(x) = 3x^3 + 10x^2 + 9x + 2$

$P_{172}(x) = 4x^3 - 3x^2 - 16x + 12$

$P_{173}(x) = 3x^3 - 16x^2 + 15x + 18$

$P_{174}(x) = 3x^3 + 11x^2 + 12x + 4$

$P_{175}(x) = 3x^3 - 2x^2 - 19x - 6$

Polinomios de grado 4

$P_{176}(x) = 3x^4 - 8x^3 - 15x^2 + 32x + 12$

$P_{177}(x) = 2x^4 + x^3 - 14x^2 - 19x - 6$

$P_{178}(x) = 3x^4 - 7x^3 - 18x^2 + 28x + 24$

$P_{179}(x) = 8x^4 + 37x^3 + 49x^2 + 8x - 12$

$P_{180}(x) = 3x^4 + 8x^3 + x^2 - 8x - 4$

$P_{181}(x) = 3x^4 + 5x^3 - 5x^2 - 5x + 2$

$P_{182}(x) = 2x^4 - 2x^3 - 20x^2 + 8x + 48$

$P_{183}(x) = 3x^4 - 13x^3 + 7x^2 + 17x - 6$

$P_{184}(x) = 3x^4 + 4x^3 - 7x^2 - 4x + 4$

$P_{185}(x) = 5x^4 + 17x^3 + 13x^2 - 5x - 6$

$P_{186}(x) = 3x^4 - 7x^3 - x^2 + 7x - 2$

$P_{187}(x) = 2x^4 - 11x^3 + 19x^2 - 13x + 3$

$P_{188}(x) = 3x^4 - 10x^3 - 9x^2 + 40x - 12$

$P_{189}(x) = 3x^4 + 2x^3 - 4x^2 - 2x + 1$

$P_{190}(x) = -x^4 + 5x^2 - 4$

$P_{191}(x) = 2x^4 + 3x^3 - 7x^2 - 12x - 4$

$P_{192}(x) = 3x^4 - 8x^3 - 6x^2 + 8x + 3$

$P_{193}(x) = 3x^4 + 2x^3 - 25x^2 - 28x + 12$

$P_{194}(x) = 2x^4 - 8x^3 - 2x^2 + 32x - 24$

$P_{195}(x) = 3x^4 - 2x^3 - 9x^2 + 4$

$P_{196}(x) = x^4 - 8x^3 + 23x^2 - 28x + 12$

$P_{197}(x) = 3x^4 - 16x^3 + 29x^2 - 20x + 4$

$P_{198}(x) = 2x^4 - 3x^3 - 4x^2 + 3x + 2$

$P_{199}(x) = 3x^4 - 4x^3 - 19x^2 + 8x + 12$

$P_{200}(x) = x^4 - 9x^3 + 29x^2 - 39x + 18$

Polinomios de grado 5

$P_{201}(x) = 2x^5 - 13x^4 + 16x^3 + 43x^2 - 96x + 36$

$P_{202}(x) = 3x^5 - 11x^4 + 9x^3 + 7x^2 - 12x + 4$

$P_{203}(x) = 3x^5 - x^4 - 15x^3 + 5x^2 + 12x - 4$

$P_{204}(x) = 2x^5 - x^4 - 4x^3 + 2x^2 + 2x - 1$

$P_{205}(x) = 2x^5 - 3x^4 - 5x^3 + 5x^2 + 3x - 2$

$P_{206}(x) = 2x^5 - 16x^4 + 40x^3 - 20x^2 - 42x + 36$

$P_{207}(x) = 3x^5 - 13x^4 + 13x^3 + 9x^2 - 16x + 4$

$P_{208}(x) = 3x^5 - 29x^4 + 98x^3 - 126x^2 + 27x + 27$

$P_{209}(x) = 2x^5 - 7x^4 - 3x^3 + 25x^2 - 23x + 6$

$P_{210}(x) = 7x^5 - 31x^4 + 26x^3 + 22x^2 - 33x + 9$

$P_{211}(x) = 3x^5 + 7x^4 - 7x^3 - 27x^2 - 20x - 4$

$P_{212}(x) = 2x^5 - 9x^4 - x^3 + 42x^2 - 28x - 24$

$P_{213}(x) = -x^5 + 5x^4 - 4x^3 - 16x^2 + 32x - 16$

$P_{214}(x) = 2x^5 - 9x^4 + 8x^3 + 6x^2 - 10x + 3$

$P_{215}(x) = 3x^5 - 5x^4 - 11x^3 + 21x^2 - 4x - 4$

$P_{216}(x) = 7x^5 - 24x^4 - 12x^3 + 86x^2 - 75x + 18$

$P_{217}(x) = 3x^5 - 13x^4 - 2x^3 + 38x^2 + 15x - 9$

$P_{218}(x) = 4x^5 - 7x^4 - 37x^3 + 46x^2 + 84x - 72$

$P_{219}(x) = 3x^5 - 2x^4 - 18x^3 - 12x^2 + 7x + 6$

$P_{220}(x) = 3x^5 - 7x^4 - 3x^3 + 11x^2 - 4$

$P_{221}(x) = 2x^5 + 5x^4 - 4x^3 - 19x^2 - 16x - 4$

$P_{222}(x) = 2x^5 - 11x^4 + 18x^3 - x^2 - 20x + 12$

$P_{223}(x) = -2x^5 - 4x^4 + 16x^3 + 32x^2 - 32x - 64$

$P_{224}(x) = -2x^5 + 6x^4 + 10x^3 - 30x^2 - 8x + 24$

$P_{225}(x) = 7x^5 - 17x^4 - 22x^3 + 26x^2 + 15x - 9$

Polinomios de grado 6

$P_{226}(x) = -2x^6 + 8x^5 - 4x^4 - 24x^3 + 46x^2 - 32x + 8$

$P_{227}(x) = x^6 + 5x^5 + 5x^4 - 13x^3 - 34x^2 - 28x - 8$

$P_{228}(x) = 5x^6 + 12x^5 - 14x^4 - 32x^3 + 21x^2 + 20x - 12$

$P_{229}(x) = 2x^6 + 5x^5 - 8x^4 - 25x^3 - 2x^2 + 20x + 8$

$P_{230}(x) = 3x^6 + 5x^5 - 20x^4 - 54x^3 - 37x^2 + x + 6$

$P_{231}(x) = 3x^6 - 16x^5 + 9x^4 + 68x^3 - 96x^2 - 16x + 48$

$P_{232}(x) = 2x^6 - 5x^5 - 13x^4 + 25x^3 + 23x^2 - 20x - 12$

$P_{233}(x) = 4x^6 - 19x^5 + 97x^3 - 82x^2 - 84x + 72$

$P_{234}(x) = 3x^6 - 17x^5 + 19x^4 + 45x^3 - 118x^2 + 92x - 24$

$P_{235}(x) = x^6 - 4x^5 - 6x^4 + 28x^3 + 17x^2 - 48x - 36$

$P_{236}(x) = 3x^6 - 32x^5 + 130x^4 - 244x^3 + 191x^2 - 12x - 36$

$P_{237}(x) = 3x^6 - 20x^5 + 38x^4 - 53x^2 + 20x + 12$

$P_{238}(x) = 2x^6 - 3x^5 - 25x^4 + 15x^3 + 95x^2 + 24x - 36$

$P_{239}(x) = 3x^6 - x^5 - 17x^4 + 5x^3 + 22x^2 - 4x - 8$

$P_{240}(x) = -x^6 + 4x^5 + 2x^4 - 20x^3 + 11x^2 + 16x - 12$

$P_{241}(x) = 2x^6 + 9x^5 + 4x^4 - 29x^3 - 30x^2 + 20x + 24$

$P_{242}(x) = 3x^6 - 4x^5 - 10x^4 + 8x^3 + 11x^2 - 4x - 4$

$P_{243}(x) = 3x^6 - 8x^5 - 18x^4 + 40x^3 + 27x^2 - 32x - 12$

$P_{244}(x) = x^6 - 2x^5 - 7x^4 + 12x^3 + 16x^2 - 16x - 16$

$P_{245}(x) = x^6 - 2x^5 - 4x^4 + 10x^3 - x^2 - 8x + 4$

$P_{246}(x) = -x^6 + 7x^5 - 9x^4 - 31x^3 + 70x^2 + 12x - 72$

$P_{247}(x) = -x^6 + 4x^5 + 5x^4 - 32x^3 + 8x^2 + 64x - 48$

$P_{248}(x) = 3x^6 - 13x^5 - 8x^4 + 70x^3 - 13x^2 - 57x + 18$

$P_{249}(x) = 2x^6 + x^5 - 11x^4 - 5x^3 + 13x^2 + 4x - 4$

$P_{250}(x) = 3x^6 - 5x^5 - 25x^4 + 33x^3 + 38x^2 - 68x + 24$

2. Soluciones

$$P_{1}(x) = -(x+2)^{2}$$
$$P_{2}(x) = -2\,(x+1)(x-1)$$
$$P_{3}(x) = 2\,(x-1)(x-3)$$
$$P_{4}(x) = 2\,(x+1)(x-2)$$
$$P_{5}(x) = (x-2)(x-3)$$
$$P_{6}(x) = (x-2)(x-3)$$
$$P_{7}(x) = -(x-1)^{2}$$
$$P_{8}(x) = 2\,(x-2)(x-3)$$
$$P_{9}(x) = -(x-1)(x-3)$$
$$P_{10}(x) = -(x+2)(x+1)$$
$$P_{11}(x) = (x+2)(x-2)$$
$$P_{12}(x) = (x-3)^{2}$$
$$P_{13}(x) = (x+1)(x-3)$$
$$P_{14}(x) = -2\,(x-2)^{2}$$
$$P_{15}(x) = 2\,(x+2)(x-1)$$
$$P_{16}(x) = (x+1)(x-2)$$
$$P_{17}(x) = 2\,(x+1)(x-1)$$
$$P_{18}(x) = 2\,(x+1)(x-1)$$
$$P_{19}(x) = (x+2)(x-3)$$
$$P_{20}(x) = (x-1)(x-3)$$
$$P_{21}(x) = (x+2)(x+1)$$
$$P_{22}(x) = 2\,(x+2)^{2}$$
$$P_{23}(x) = -2\,(x-1)^{2}$$
$$P_{24}(x) = -2\,(x+1)(x-1)$$
$$P_{25}(x) = -2\,(x+2)(x-3)$$
$$P_{26}(x) = (x+2)(x-2)(x-3)$$
$$P_{27}(x) = 2\,(x+2)(x-2)^{2}$$
$$P_{28}(x) = -2\,(x+2)^{2}(x-3)$$
$$P_{29}(x) = 2\,(x+2)(x+1)(x-3)$$
$$P_{30}(x) = (x-1)(x-2)(x-3)$$
$$P_{31}(x) = (x+1)^{2}(x-3)$$
$$P_{32}(x) = (x+2)(x-1)^{2}$$
$$P_{33}(x) = (x+2)^{2}(x-3)$$
$$P_{34}(x) = -2\,(x+2)^{2}(x-2)$$
$$P_{35}(x) = (x+2)(x-2)^{2}$$
$$P_{36}(x) = 2\,(x+2)(x-3)^{2}$$
$$P_{37}(x) = (x-1)(x-3)^{2}$$
$$P_{38}(x) = 2\,(x+2)(x+1)^{2}$$
$$P_{39}(x) = (x+2)^{2}(x+1)$$
$$P_{40}(x) = -2\,(x+1)(x-1)(x-2)$$
$$P_{41}(x) = (x+2)(x+1)(x-1)$$
$$P_{42}(x) = 2\,(x+2)^{2}(x-2)$$
$$P_{43}(x) = (x+2)(x-1)(x-2)$$
$$P_{44}(x) = (x+2)(x+1)(x-2)$$
$$P_{45}(x) = -(x-2)^{3}$$
$$P_{46}(x) = (x+2)(x-1)(x-2)$$
$$P_{47}(x) = -(x+2)(x+1)(x-3)$$
$$P_{48}(x) = (x+1)^{2}(x-1)$$
$$P_{49}(x) = -(x+2)(x+1)(x-1)$$
$$P_{50}(x) = -(x+1)^{2}(x-3)$$
$$P_{51}(x) = -2\,(x+2)(x+1)^{2}(x-2)$$
$$P_{52}(x) = -2\,(x+2)(x-1)(x-2)^{2}$$
$$P_{53}(x) = 2\,(x+2)(x-2)(x-3)^{2}$$
$$P_{54}(x) = -2\,(x+2)^{2}(x+1)^{2}$$
$$P_{55}(x) = (x+1)(x-1)(x-2)(x-3)$$
$$P_{56}(x) = (x+2)(x-1)(x-2)^{2}$$
$$P_{57}(x) = (x+2)^{2}(x-2)^{2}$$
$$P_{58}(x) = (x+2)(x+1)^{3}$$
$$P_{59}(x) = (x+2)^{2}(x-1)(x-3)$$
$$P_{60}(x) = (x+2)^{2}(x-1)^{2}$$
$$P_{61}(x) = (x+2)(x+1)^{2}(x-3)$$
$$P_{62}(x) = (x+1)^{2}(x-3)^{2}$$
$$P_{63}(x) = -2\,(x+1)(x-1)^{2}(x-2)$$
$$P_{64}(x) = -2\,(x+1)(x-2)^{2}(x-3)$$
$$P_{65}(x) = -(x+2)(x-1)(x-2)(x-3)$$
$$P_{66}(x) = -(x+2)(x-2)(x-3)^{2}$$
$$P_{67}(x) = (x+2)^{2}(x-1)(x-2)$$
$$P_{68}(x) = (x+1)(x-1)^{2}(x-2)$$
$$P_{69}(x) = -2\,(x-1)(x-2)^{2}(x-3)$$
$$P_{70}(x) = (x+1)^{2}(x-1)(x-3)$$
$$P_{71}(x) = 2\,(x+2)^{2}(x-1)(x-2)$$
$$P_{72}(x) = (x+2)(x-2)^{3}$$
$$P_{73}(x) = -2\,(x+2)(x+1)(x-2)(x-3)$$
$$P_{74}(x) = -2\,(x-2)^{2}(x-3)^{2}$$
$$P_{75}(x) = -(x+2)^{3}(x-3)$$
$$P_{76}(x) = 2\,(x+2)^{2}(x-1)(x-2)(x-3)$$
$$P_{77}(x) = -2\,(x+1)^{2}(x-1)^{2}(x-3)$$
$$P_{78}(x) = (x+1)^{3}(x-3)^{2}$$
$$P_{79}(x) = (x+2)(x+1)^{2}(x-1)(x-2)$$
$$P_{80}(x) = 2\,(x+2)(x+1)(x-1)(x-3)^{2}$$
$$P_{81}(x) = 2\,(x+2)^{2}(x-3)^{3}$$
$$P_{82}(x) = (x+2)(x+1)^{2}(x-2)(x-3)$$
$$P_{83}(x) = (x+2)(x+1)^{2}(x-1)(x-2)$$
$$P_{84}(x) = (x+2)(x+1)(x-1)^{3}$$
$$P_{85}(x) = (x+2)(x+1)^{2}(x-2)^{2}$$
$$P_{86}(x) = -2\,(x+1)^{2}(x-2)(x-3)^{2}$$
$$P_{87}(x) = 2\,(x+2)(x-2)(x-3)^{3}$$
$$P_{88}(x) = (x+1)(x-1)^{2}(x-2)(x-3)$$
$$P_{89}(x) = (x+2)^{2}(x-1)(x-2)^{2}$$
$$P_{90}(x) = -(x+1)^{2}(x-2)^{2}(x-3)$$
$$P_{91}(x) = (x+2)(x+1)(x-1)^{2}(x-2)$$

$P_{92}(x)$
$= -(x+2)^2(x+1)^2(x-2)$

$P_{93}(x) =$
$-2\,(x+2)^2(x+1)^2(x-3)$

$P_{94}(x)$
$= (x+1)(x-1)(x-3)^3$

$P_{95}(x)$
$= 2\,(x+1)(x-1)^2(x-2)(x-3)$

$P_{96}(x)$
$= (x+2)(x+1)(x-1)^2(x-3)$

$P_{97}(x) =$
$-2\,(x+1)(x-1)^2(x-3)^2$

$P_{98}(x)$
$= (x+2)^2(x+1)(x-2)(x-3)$

$P_{99}(x) = 2\,(x+1)(x-1)^4$

$P_{100}(x)$
$= 2\,(x+2)(x+1)^2(x-1)(x-3)$

$P_{101}(x)$
$= (x+2)^2(x-1)^3(x-2)$

$P_{102}(x)$
$= (x+2)^2(x+1)(x-2)(x-3)^2$

$P_{103}(x)$
$= -2\,(x+2)(x-1)(x-2)(x-3)^3$

$P_{104}(x)$
$= (x+2)^2(x+1)(x-2)^2(x-3)$

$P_{105}(x)$
$= (x+2)(x+1)(x-1)(x-2)(x-3)^2$

$P_{106}(x)$
$= (x+2)(x-2)^4(x-3)$

$P_{107}(x)$
$= -(x-1)^2(x-2)^2(x-3)^2$

$P_{108}(x)$
$= (x+2)(x+1)^2(x-2)^3$

$P_{109}(x)$
$= (x+2)^2(x+1)^2(x-1)(x-2)$

$P_{110}(x) = (x+1)^5(x-2)$

$P_{111}(x)$
$= -2\,(x+2)(x+1)^2(x-1)^2(x-2)$

$P_{112}(x)$
$= 2\,(x+2)^2(x-2)^2(x-3)^2$

$P_{113}(x)$
$= 2\,(x+2)(x+1)(x-1)(x-2)(x-3)^2$

$P_{114}(x)$
$= -(x+1)^3(x-1)(x-2)(x-3)$

$P_{115}(x)$
$= (x+2)^2(x+1)(x-1)^2(x-3)$

$P_{116}(x)$
$= (x+1)(x-1)^2(x-2)(x-3)^2$

$P_{117}(x)$
$= (x+2)(x+1)(x-2)^3(x-3)$

$P_{118}(x)$
$= (x+2)(x+1)(x-1)^2(x-3)^2$

$P_{119}(x)$
$= (x+2)^2(x+1)(x-1)(x-3)^2$

$P_{120}(x) =$
$-2\,(x+1)(x-1)^3(x-3)^2$

$P_{121}(x)$
$= (x+2)(x+1)^2(x-1)(x-2)(x-3)$

$P_{122}(x)$
$= (x+2)^2(x-1)^3(x-3)$

$P_{123}(x)$
$= (x+2)^2(x+1)(x-1)(x-2)^2$

$P_{124}(x)$
$= (x+1)^2(x-2)^2(x-3)^2$

$P_{125}(x)$
$= 2\,(x+2)^2(x+1)^2(x-1)(x-2)$

$P_{126}(x) = (2\,x+1)(x-2)$

$P_{127}(x) = (2\,x+1)(x-3)$

$P_{128}(x) = (2\,x-1)(x+1)$

$P_{129}(x) = 2\,(x+1)(x-2)$

$P_{130}(x) = (3\,x-2)(x-2)$

$P_{131}(x) = (2\,x-1)(x-1)$

$P_{132}(x) = (3\,x-2)(x+1)$

$P_{133}(x) = (2\,x-1)(x+2)$

$P_{134}(x) = (x-2)^2$

$P_{135}(x) = (8\,x-3)(x-1)$

$P_{136}(x) = (2\,x-3)(x+2)$

$P_{137}(x) = (2\,x-1)(x-2)$

$P_{138}(x) = (3\,x+1)(x-2)$

$P_{139}(x) = (2\,x-1)(x+2)$

$P_{140}(x) = 2\,(x+2)(x+1)$

$P_{141}(x) = (3\,x+1)(x-3)$

$P_{142}(x) = (3\,x+1)(x-1)$

$P_{143}(x) = (7\,x-3)(x+1)$

$P_{144}(x) = (x-2)(x-3)$

$P_{145}(x) = (2\,x-1)(x+2)$

$P_{146}(x) = (3\,x+2)(x-2)$

$P_{147}(x) = (2\,x-1)(x-2)$

$P_{148}(x) = (3\,x+1)(x+2)$

$P_{149}(x) = (2\,x-1)(x-1)$

$P_{150}(x) = (2\,x-1)(x-3)$

$P_{151}(x)$
$= (3\,x-2)(x-1)(x-2)$

$P_{152}(x)$
$= (2\,x-1)(x+2)(x-2)$

$P_{153}(x)$
$= (2\,x-1)(x+2)(x-3)$

$P_{154}(x)$
$= (2\,x-1)(x+2)(x+1)$

$P_{155}(x) = -2\,(x+2)^2(x-2)$

$P_{156}(x) = -(x+2)^2(x-3)$

$P_{157}(x)$
$= (3\,x+2)(x+2)(x-1)$

$P_{158}(x)$
$= (3\,x-1)(x+2)(x+1)$

$P_{159}(x)$
$= (x+1)(x-1)(x-3)$

$P_{160}(x)$
$= (3\,x-1)(x+1)(x-2)$

$P_{161}(x)$
$= (3\,x-2)(x-1)(x-3)$

$P_{162}(x)$
$= (3\,x-1)(x+2)(x-3)$

$P_{163}(x)$
$= (3\,x+2)(x-1)(x-2)$

$P_{164}(x)$
$= (3\,x+1)(x+1)(x-2)$

$P_{165}(x) = (3\,x-1)(x-1)^2$

$P_{166}(x)$
$= (3\,x-1)(x+2)(x+1)$

$P_{167}(x)$
$= (3\,x-2)(x+1)(x-3)$

$P_{168}(x)$
$= (3\,x-1)(x+2)(x-1)$

$P_{169}(x)$
$= (3\,x+2)(x+1)(x-2)$

$P_{170}(x)$
$= (3\,x-1)(x+2)(x-2)$

$P_{171}(x)$
$= (3\,x+1)(x+2)(x+1)$

$P_{172}(x)$
$= (4\,x-3)(x+2)(x-2)$

$P_{173}(x) = (3\,x+2)(x-3)^2$

$P_{174}(x)$
$= (3\,x+2)(x+2)(x+1)$

$P_{175}(x)$
$= (3\,x+1)(x+2)(x-3)$

$P_{176}(x)$
$= (3\,x+1)(x+2)(x-2)(x-3)$

$P_{177}(x)$
$= (2\,x+1)(x+2)(x+1)(x-3)$
$P_{178}(x)$
$= (3\,x+2)(x+2)(x-2)(x-3)$
$P_{179}(x)$
$= (8\,x-3)(x+2)^2(x+1)$
$P_{180}(x)$
$= (3\,x+2)(x+2)(x+1)(x-1)$
$P_{181}(x)$
$= (3\,x-1)(x+2)(x+1)(x-1)$
$P_{182}(x)$
$= 2\,(x+2)^2(x-2)(x-3)$
$P_{183}(x)$
$= (3\,x-1)(x+1)(x-2)(x-3)$
$P_{184}(x)$
$= (3\,x-2)(x+2)(x+1)(x-1)$
$P_{185}(x)$
$= (5\,x-3)(x+2)(x+1)^2$
$P_{186}(x)$
$= (3\,x-1)(x+1)(x-1)(x-2)$
$P_{187}(x)$
$= (2\,x-1)(x-1)^2(x-3)$
$P_{188}(x)$
$= (3\,x-1)(x+2)(x-2)(x-3)$
$P_{189}(x)$
$= (3\,x-1)(x+1)^2(x-1)$
$P_{190}(x)$
$= -(x+2)(x+1)(x-1)(x-2)$
$P_{191}(x)$
$= (2\,x+1)(x+2)(x+1)(x-2)$
$P_{192}(x)$
$= (3\,x+1)(x+1)(x-1)(x-3)$
$P_{193}(x)$
$= (3\,x-1)(x+2)^2(x-3)$
$P_{194}(x)$
$= 2\,(x+2)(x-1)(x-2)(x-3)$
$P_{195}(x)$
$= (3\,x-2)(x+1)^2(x-2)$
$P_{196}(x)$
$= (x-1)(x-2)^2(x-3)$
$P_{197}(x)$
$= (3\,x-1)(x-1)(x-2)^2$
$P_{198}(x)$
$= (2\,x+1)(x+1)(x-1)(x-2)$
$P_{199}(x)$
$= (3\,x+2)(x+2)(x-1)(x-3)$
$P_{200}(x)$
$= (x-1)(x-2)(x-3)^2$
$P_{201}(x)$
$= (2\,x-1)(x+2)(x-2)(x-3)^2$
$P_{202}(x)$
$= (3\,x-2)(x+1)(x-1)^2(x-2)$
$P_{203}(x)$
$= (3\,x-1)(x+2)(x+1)(x-1)(x-2)$
$P_{204}(x)$
$= (2\,x-1)(x+1)^2(x-1)^2$
$P_{205}(x)$
$= (2\,x-1)(x+1)^2(x-1)(x-2)$
$P_{206}(x)$
$= 2\,(x+1)(x-1)(x-2)(x-3)^2$
$P_{207}(x)$
$= (3\,x-1)(x+1)(x-1)(x-2)^2$
$P_{208}(x)$
$= (3\,x+1)(x-1)(x-3)^3$
$P_{209}(x)$
$= (2\,x-1)(x+2)(x-1)^2(x-3)$
$P_{210}(x)$
$= (7\,x-3)(x+1)(x-1)^2(x-3)$
$P_{211}(x)$
$= (3\,x+1)(x+2)(x+1)^2(x-2)$
$P_{212}(x)$
$= (2\,x+1)(x+2)(x-2)^2(x-3)$
$P_{213}(x)$
$= -(x+2)(x-1)(x-2)^3$
$P_{214}(x)$
$= (2\,x-1)(x+1)(x-1)^2(x-3)$
$P_{215}(x)$
$= (3\,x+1)(x+2)(x-1)^2(x-2)$
$P_{216}(x)$
$= (7\,x-3)(x+2)(x-1)^2(x-3)$
$P_{217}(x)$
$= (3\,x-1)(x+1)^2(x-3)^2$
$P_{218}(x)$
$= (4\,x-3)(x+2)^2(x-2)(x-3)$
$P_{219}(x)$
$= (3\,x-2)(x+1)^3(x-3)$
$P_{220}(x)$
$= (3\,x+2)(x+1)(x-1)^2(x-2)$
$P_{221}(x)$
$= (2\,x+1)(x+2)(x+1)^2(x-2)$
$P_{222}(x)$
$= (2\,x-3)(x+1)(x-1)(x-2)^2$
$P_{223}(x)$
$= -2\,(x+2)^3(x-2)^2$
$P_{224}(x) =$
$-2\,(x+2)(x+1)(x-1)(x-2)(x-3)$
$P_{225}(x)$
$= (7\,x-3)(x+1)^2(x-1)(x-3)$
$P_{226}(x)$
$= -2\,(x+2)(x-1)^4(x-2)$
$P_{227}(x)$
$= (x+2)^2(x+1)^3(x-2)$
$P_{228}(x)$
$= (5\,x-3)(x+2)^2(x+1)(x-1)^2$
$P_{229}(x)$
$= (2\,x+1)(x+2)^2(x+1)(x-1)(x-2)$
$P_{230}(x)$
$= (3\,x-1)(x+2)(x+1)^3(x-3)$
$P_{231}(x)$
$= (3\,x+2)(x+2)(x-1)(x-2)^2(x-3)$
$P_{232}(x)$
$= (2\,x+1)(x+2)(x+1)(x-1)(x-2)(x-3$
$P_{233}(x)$
$= (4\,x-3)(x+2)(x+1)(x-2)^2(x-3)$
$P_{234}(x)$
$= (3\,x-2)(x+2)(x-1)^2(x-2)(x-3)$
$P_{235}(x)$
$= (x+2)(x+1)^2(x-2)(x-3)^2$
$P_{236}(x)$
$= (3\,x+1)(x-1)(x-2)^2(x-3)^2$
$P_{237}(x)$
$= (3\,x+1)(x+1)(x-1)(x-2)^2(x-3)$
$P_{238}(x)$
$= (2\,x-1)(x+2)^2(x+1)(x-3)^2$
$P_{239}(x)$
$= (3\,x+2)(x+2)(x+1)(x-1)^2(x-2)$
$P_{240}(x) =$
$-(x+2)(x+1)(x-1)^2(x-2)(x-3)$
$P_{241}(x)$
$= (2\,x-3)(x+2)^3(x+1)(x-1)$
$P_{242}(x)$
$= (3\,x+2)(x+1)^2(x-1)^2(x-2)$
$P_{243}(x)$
$= (3\,x+1)(x+2)(x+1)(x-1)(x-2)(x-3$
$P_{244}(x)$
$= (x+2)(x+1)^2(x-2)^3$
$P_{245}(x)$
$= (x+2)(x+1)(x-1)^3(x-2)$
$P_{246}(x)$
$= -(x+2)(x+1)(x-2)^2(x-3)^2$
$P_{247}(x)$
$= -(x+2)^2(x-1)(x-2)^2(x-3)$
$P_{248}(x)$
$= (3\,x-1)(x+2)(x+1)(x-1)(x-3)^2$
$P_{249}(x)$
$= (2\,x-1)(x+2)(x+1)^2(x-1)(x-2)$
$P_{250}(x)$
$= (3\,x-2)(x+2)^2(x-1)^2(x-3)$