

Индивидуальное задание.

Построить графики функций $f(x)$ и $g(x)$, уточнить координаты точек пересечения, решая численно соответствующее уравнение. На графике отметить и подписать буквами A_1 , A_2 , ... точки пересечения графиков. .

N1

$$f(x) = \frac{x(28-x)}{32}$$

$$g(x) = \frac{13x^2}{32} + \frac{7x}{8} - 7$$

N2

$$f(x) = -\frac{x^2}{4} + \frac{x}{2} + 5$$

$$g(x) = \frac{5x^2}{4} + \frac{13x}{2} + 5$$

N3

$$f(x) = \frac{x^2}{16} + \frac{5x}{8} + \frac{5}{16}$$

$$g(x) = \frac{7x^2}{16} - \frac{x}{8} - \frac{85}{16}$$

N4

$$f(x) = \frac{x^2}{18} + \frac{7x}{6} + 4$$

$$g(x) = \frac{13x^2}{18} + \frac{7x}{6} - 2$$

N5

$$f(x) = \frac{3x^2}{32} + \frac{11x}{16} + \frac{7}{32}$$

$$g(x) = \frac{11x^2}{32} + \frac{3x}{16} - \frac{113}{32}$$

N6

$$f(x) = -\frac{x^2}{16} + \frac{7x}{8} + \frac{35}{16}$$

$$g(x) = \frac{7x^2}{16} - \frac{x}{8} - \frac{85}{16}$$

N7

$$f(x) = \frac{x^2}{18} + \frac{19x}{18} + \frac{8}{9}$$

$$g(x) = \frac{13x^2}{18} - \frac{5x}{18} - \frac{40}{9}$$

N8

$$f(x) = \frac{x^2}{9} + \frac{11x}{9} - \frac{8}{9}$$

$$g(x) = \frac{7x^2}{9} + \frac{23x}{9} - \frac{56}{9}$$

N9

$$f(x) = \frac{2x^2}{9} + \frac{8x}{9} - \frac{28}{9}$$

$$g(x) = \frac{2x^2}{3} - \frac{20}{3}$$

N10

$$f(x) = \frac{x^2}{32} + \frac{3x}{4} - \frac{5}{8}$$
$$g(x) = \frac{11x^2}{32} - \frac{x}{2} - \frac{35}{8}$$

N11

$$f(x) = -\frac{x^2}{16} + \frac{7x}{8} + \frac{35}{16}$$
$$g(x) = \frac{5x^2}{16} + \frac{x}{8} - \frac{55}{16}$$

N12

$$f(x) = \frac{x^2}{6} + \frac{5x}{6} + 5$$
$$g(x) = \frac{13x^2}{18} - \frac{5x}{18} + \frac{5}{9}$$

N13

$$f(x) = \frac{x^2}{32} + \frac{7x}{8} + 1$$
$$g(x) = \frac{15x^2}{32} + \frac{7x}{8} - 6$$

N14

$$f(x) = -\frac{x^2}{9} + \frac{10x}{9} + \frac{74}{9}$$
$$g(x) = \frac{2(x+1)(x+3)}{3}$$

N15

$$f(x) = \frac{(x+2)(x+6)}{16}$$
$$g(x) = \frac{3(x-4)(x+2)}{8}$$

N16

$$f(x) = -\frac{x^2}{16} + x + 1$$
$$g(x) = \frac{3x^2}{8} + x - 6$$

N17

$$f(x) = \frac{(x+3)(x+5)}{4}$$
$$g(x) = \frac{(x+3)(5x+1)}{4}$$

N18

$$f(x) = -\frac{x^2}{16} + x + \frac{29}{4}$$
$$g(x) = \frac{7x^2}{16} - x + \frac{5}{4}$$

N19

$$f(x) = \frac{x^2}{9} + \frac{7x}{9} + \frac{19}{9}$$
$$g(x) = \frac{5x^2}{9} - \frac{x}{9} - \frac{13}{9}$$

N20

$$f(x) = \frac{x^2}{2} + 4x + 12$$
$$g(x) = \frac{3x^2}{2} + 8x + 12$$

N21

$$f(x) = \frac{x^2}{4} + \frac{5x}{2} + \frac{13}{4}$$
$$g(x) = \frac{3x^2}{2} + 5x - \frac{1}{2}$$

N22

$$f(x) = -\frac{x^2}{9} + \frac{7x}{9} + \frac{71}{9}$$
$$g(x) = \frac{5x^2}{9} + \frac{19x}{9} + \frac{23}{9}$$

N23

$$f(x) = \frac{x^2}{9} + x + 7$$
$$g(x) = \frac{7x^2}{9} + x + 1$$

N24

$$f(x) = -\frac{x^2}{18} + \frac{7x}{6} + 9$$
$$g(x) = \frac{11x^2}{18} + \frac{7x}{6} + 3$$

N25

$$f(x) = \frac{(33-x)(x+3)}{32}$$
$$g(x) = \frac{(x+3)(15x-47)}{32}$$

N26

$$f(x) = -\frac{x^2}{9} + \frac{7x}{9} + \frac{35}{9}$$
$$g(x) = \frac{7x^2}{9} + \frac{23x}{9} - \frac{29}{9}$$

N27

$$f(x) = \frac{x^2}{8} + \frac{3x}{4} + \frac{33}{8}$$
$$g(x) = \frac{(x-1)(7x+9)}{16}$$

N28

$$f(x) = \frac{(16-x)(x+2)}{8}$$
$$g(x) = \frac{(x+2)(11x-8)}{8}$$

N29

$$f(x) = \left(\frac{x}{2} + 1\right)(x+2)$$
$$g(x) = 2(x-1)(x+2)$$

N30

$$f(x) = \frac{x^2}{2} + 2x + 1$$
$$g(x) = \frac{3x^2}{2} + 2x - 3$$

N31

$$f(x) = \frac{x^2}{9} + \frac{7x}{9} + \frac{28}{9}$$
$$g(x) = \frac{5x^2}{9} - \frac{x}{9} - \frac{4}{9}$$

N32

$$f(x) = \frac{x^2}{4} + 3x + 9$$
$$g(x) = \frac{7x^2}{4} + 9x + 9$$

N33

$$f(x) = -\frac{x^2}{9} + x + 1$$
$$g(x) = \frac{5x^2}{9} + x - 5$$

N34

$$f(x) = \frac{x^2}{9} + x + 1$$
$$g(x) = \frac{5x^2}{9} + x - 3$$

N35

$$f(x) = \frac{3x^2}{8} + \frac{5x}{2} + \frac{49}{8}$$
$$g(x) = \frac{(x+1)(11x+25)}{8}$$

N36

$$f(x) = \frac{x^2}{9} + \frac{11x}{9} + \frac{73}{9}$$
$$g(x) = \frac{5x^2}{9} + \frac{19x}{9} + \frac{41}{9}$$

N37

$$f(x) = \frac{(x+4)(x+5)}{6}$$
$$g(x) = \frac{(x+4)(11x-1)}{18}$$

N38

$$f(x) = \frac{(x+2)(x+6)}{4}$$
$$g(x) = \left(\frac{x}{2} + 1\right)(3x - 2)$$

N39

$$f(x) = \frac{x^2}{6} + \frac{3x}{2} + \frac{1}{3}$$
$$g(x) = \frac{11x^2}{18} + \frac{43x}{18} - \frac{29}{9}$$

N40

$$f(x) = \frac{x^2}{9} + \frac{14x}{9} + \frac{58}{9}$$
$$g(x) = \frac{8x^2}{9} + \frac{28x}{9} + \frac{2}{9}$$

N41

$$f(x) = \frac{3x^2}{32} + \frac{7x}{8} - 2$$
$$g(x) = \frac{13x^2}{32} + \frac{7x}{8} - 7$$

N42

$$f(x) = -\frac{x^2}{16} + \frac{7x}{8} + \frac{115}{16}$$
$$g(x) = \frac{(x-1)(7x+5)}{16}$$

N43

$$f(x) = -\frac{x^2}{32} + \frac{7x}{8} + 8$$
$$g(x) = \frac{13x^2}{32} + \frac{7x}{8} + 1$$

N44

$$f(x) = \frac{x^2}{4} + \frac{3x}{2} - 2$$
$$g(x) = \frac{3x^2}{2} + \frac{3x}{2} - 7$$

N45

$$f(x) = -\frac{x^2}{4} + \frac{3x}{2} + \frac{15}{4}$$
$$g(x) = \frac{7x^2}{4} + \frac{11x}{2} - \frac{9}{4}$$

N46

$$f(x) = \frac{x^2}{8} + 2x + \frac{23}{8}$$
$$g(x) = \frac{11x^2}{8} + \frac{9x}{2} - \frac{7}{8}$$

N47

$$f(x) = \left(\frac{x}{2} + 1\right)(x + 6)$$
$$g(x) = 2x^2 + 10x + 6$$

N48

$$f(x) = \frac{3x^2}{32} + \frac{x}{2} - \frac{19}{8}$$
$$g(x) = \frac{15x^2}{32} - x - \frac{55}{8}$$

N49

$$f(x) = \frac{x^2}{8} + 2x + \frac{55}{8}$$
$$g(x) = \frac{(x+1)(11x+25)}{8}$$

N50

$$f(x) = \frac{(x+1)(x+8)}{6}$$
$$g(x) = \frac{11x^2}{18} + \frac{43x}{18} - \frac{20}{9}$$

N51

$$f(x) = \frac{(x+2)(3x+20)}{8}$$
$$g(x) = \frac{13x^2}{8} + \frac{33x}{4} + 5$$

N52

$$f(x) = -\frac{x^2}{4} + \frac{3x}{2} + 1$$
$$g(x) = \frac{7x^2}{4} + \frac{3x}{2} - 7$$

N53

$$f(x) = \frac{x(x+4)}{2}$$
$$g(x) = 2x^2 + 2x - 6$$

N54

$$f(x) = \frac{x^2}{8} + \frac{9x}{4} + 6$$
$$g(x) = \frac{15x^2}{8} + \frac{37x}{4} + 6$$

N55

$$f(x) = \frac{x^2}{4} + 3x + 13$$
$$g(x) = \frac{7x^2}{4} + 9x + 13$$

N56

$$f(x) = \left(\frac{x}{2} + 1\right)(x + 6)$$
$$g(x) = \frac{3x^2}{2} + 8x + 6$$

N57

$$f(x) = \frac{x^2}{16} + \frac{3x}{4} + \frac{25}{4}$$
$$g(x) = \frac{3x^2}{8} - \frac{x}{2} + \frac{5}{2}$$

N58

$$f(x) = -\frac{x^2}{32} + x + \frac{33}{8}$$
$$g(x) = \frac{(x-2)(11x+6)}{32}$$

N59

$$f(x) = -\frac{x^2}{4} + x + 10$$
$$g(x) = 2x^2 + 10x + 10$$

N60

$$f(x) = \frac{x^2}{6} + \frac{3x}{2} + \frac{13}{3}$$
$$g(x) = \frac{11x^2}{18} + \frac{43x}{18} + \frac{7}{9}$$

N61

$$f(x) = -\frac{x^2}{4} + \frac{3x}{2} + 9$$
$$g(x) = \frac{3x^2}{2} + \frac{3x}{2} + 2$$

N62

$$f(x) = -\frac{x^2}{4} + x + 10$$
$$g(x) = \frac{7x^2}{4} + 9x + 10$$

N63

$$f(x) = -\frac{x^2}{16} + x + \frac{25}{4}$$
$$g(x) = \frac{(x-2)(7x-2)}{16}$$

N64

$$f(x) = -\frac{x^2}{9} + x + 9$$
$$g(x) = \frac{7x^2}{9} + x + 1$$

N65

$$f(x) = -\frac{x^2}{4} + \frac{x}{2} + 4$$
$$g(x) = \frac{3x^2}{2} + \frac{15x}{2} + 4$$

N66

$$f(x) = -\frac{x^2}{9} + \frac{7x}{9} + \frac{17}{9}$$
$$g(x) = \frac{2x^2}{3} + \frac{7x}{3} - \frac{13}{3}$$

N67

$$f(x) = \frac{2x^2}{9} + \frac{4x}{3} + 6$$
$$g(x) = \frac{2x^2}{3} + \frac{4x}{3} + 2$$

N68

$$f(x) = \frac{x^2}{16} + \frac{x}{2} + \frac{11}{4}$$
$$g(x) = \frac{7x^2}{16} - x - \frac{7}{4}$$

N69

$$f(x) = -\frac{x^2}{4} + 2x + 6$$
$$g(x) = \frac{7x^2}{4} + 2x - 2$$

N70

$$f(x) = \frac{x^2}{16} + \frac{3x}{4} + 3$$
$$g(x) = \frac{5x^2}{16} + \frac{3x}{4} - 1$$

N71

$$f(x) = -\frac{x^2}{16} + \frac{7x}{8} + \frac{3}{16}$$
$$g(x) = \frac{7x^2}{16} - \frac{x}{8} - \frac{117}{16}$$

N72

$$f(x) = -\frac{x^2}{18} + \frac{23x}{18} + \frac{43}{9}$$
$$g(x) = \frac{11x^2}{18} - \frac{x}{18} - \frac{5}{9}$$

N73

$$f(x) = -\frac{x^2}{32} + x + \frac{1}{8}$$
$$g(x) = \frac{11x^2}{32} - \frac{x}{2} - \frac{35}{8}$$

N74

$$f(x) = -\frac{x^2}{9} + \frac{11x}{9} - \frac{1}{9}$$
$$g(x) = \frac{7x^2}{9} - \frac{5x}{9} - \frac{65}{9}$$

N75

$$f(x) = -\frac{x^2}{9} + x + 2$$
$$g(x) = \frac{5x^2}{9} + x - 4$$

N76

$$f(x) = -\frac{x^2}{9} + \frac{14x}{9} + \frac{5}{9}$$
$$g(x) = \frac{2x^2}{3} - \frac{17}{3}$$

N77

$$f(x) = \frac{x^2}{32} + \frac{13x}{16} + \frac{229}{32}$$
$$g(x) = \frac{13x^2}{32} + \frac{x}{16} + \frac{49}{32}$$

N78

$$f(x) = \frac{x(x+21)}{18}$$
$$g(x) = \frac{11x^2}{18} + \frac{7x}{6} - 5$$

N79

$$f(x) = -\frac{x^2}{8} + \frac{3x}{2} + \frac{69}{8}$$
$$g(x) = \frac{15x^2}{8} + \frac{11x}{2} + \frac{21}{8}$$

N80

$$f(x) = \frac{(x-2)(3x+22)}{32}$$
$$g(x) = \frac{11x^2}{32} - \frac{x}{2} - \frac{35}{8}$$

N81

$$f(x) = \frac{x^2}{18} + \frac{23x}{18} + \frac{20}{9}$$
$$g(x) = \frac{5x^2}{6} + \frac{17x}{6} - 4$$

N82

$$f(x) = \frac{x^2}{32} + \frac{7x}{8} - 1$$
$$g(x) = \frac{13x^2}{32} + \frac{7x}{8} - 7$$

N83

$$f(x) = \frac{x(x+8)}{8}$$
$$g(x) = \frac{x^2}{2} + x - 6$$

N84

$$f(x) = -\frac{x^2}{9} + x + 4$$
$$g(x) = \frac{5x^2}{9} + x - 2$$

N85

$$f(x) = -\frac{x^2}{32} + x + \frac{49}{8}$$
$$g(x) = \frac{13x^2}{32} - \frac{3x}{4} + \frac{7}{8}$$

N86

$$f(x) = -\frac{x^2}{32} + x + \frac{57}{8}$$
$$g(x) = \frac{13x^2}{32} - \frac{3x}{4} + \frac{15}{8}$$

N87

$$f(x) = \frac{(x+3)(3x+13)}{32}$$
$$g(x) = \frac{(x+3)(11x-27)}{32}$$

N88

$$f(x) = -\frac{x^2}{4} + \frac{3x}{2} + 6$$
$$g(x) = \frac{3x^2}{2} + \frac{3x}{2} - 1$$

N89

$$f(x) = \frac{x^2}{9} + \frac{14x}{9} + \frac{58}{9}$$
$$g(x) = \frac{7x^2}{9} + \frac{26x}{9} + \frac{10}{9}$$

N90

$$f(x) = -\frac{x^2}{32} + \frac{7x}{8} + 8$$
$$g(x) = \frac{13x^2}{32} + \frac{7x}{8} + 1$$

N91

$$f(x) = -\frac{x^2}{4} + \frac{3x}{2} + 6$$
$$g(x) = \frac{7x^2}{4} + \frac{3x}{2} - 2$$

N92

$$f(x) = -\frac{x^2}{8} + \frac{5x}{4} + 10$$
$$g(x) = \frac{(x+2)(13x+40)}{8}$$

N93

$$f(x) = \frac{2x^2}{9} + \frac{4x}{3} - 2$$
$$g(x) = \frac{7x^2}{9} + \frac{4x}{3} - 7$$

N94

$$f(x) = \frac{x^2}{4} + 3x + 13$$
$$g(x) = \frac{3x^2}{2} + 8x + 13$$

N95

$$f(x) = -\frac{x^2}{9} + \frac{10x}{9} + \frac{92}{9}$$
$$g(x) = \frac{2x^2}{3} + \frac{8x}{3} + 4$$

N96

$$f(x) = -\frac{x^2}{4} + \frac{3x}{2} + 8$$
$$g(x) = \frac{x(7x+6)}{4}$$

N97

$$f(x) = -\frac{x^2}{16} + x + 1$$
$$g(x) = \frac{3x^2}{8} + x - 6$$

N98

$$f(x) = \frac{2x^2}{9} + \frac{16x}{9} + \frac{5}{9}$$
$$g(x) = \frac{2x^2}{3} + \frac{8x}{3} - 3$$

N99

$$f(x) = -\frac{x^2}{9} + \frac{4x}{3} + 3$$
$$g(x) = \frac{2x^2}{3} + \frac{4x}{3} - 4$$

N100

$$f(x) = -\frac{x^2}{9} + \frac{11x}{9} + \frac{8}{9}$$
$$g(x) = \frac{7x^2}{9} - \frac{5x}{9} - \frac{56}{9}$$

N101

$$f(x) = \frac{x^2}{9} + \frac{14x}{9} + \frac{49}{9}$$
$$g(x) = \frac{2x^2}{3} + \frac{8x}{3} + 1$$

N102

$$f(x) = \frac{x^2}{16} + \frac{5x}{8} - \frac{27}{16}$$
$$g(x) = \frac{5x^2}{16} + \frac{x}{8} - \frac{87}{16}$$

N103

$$f(x) = \frac{3x^2}{8} + \frac{5x}{2} + \frac{1}{8}$$
$$g(x) = \frac{13x^2}{8} + 5x - \frac{29}{8}$$

N104

$$f(x) = -\frac{x^2}{16} + \frac{9x}{8} - \frac{1}{16}$$
$$g(x) = \frac{x^2}{2} - \frac{17}{2}$$

N105

$$f(x) = \frac{(16-x)(x+4)}{16}$$
$$g(x) = \frac{(x+4)(5x-8)}{16}$$

N106

$$f(x) = -\frac{x^2}{16} + x + 4$$
$$g(x) = \frac{x^2}{2} + x - 5$$

N107

$$f(x) = \frac{(x+2)(x+6)}{4}$$
$$g(x) = \left(\frac{x}{2} + 1\right)(3x - 2)$$

N108

$$f(x) = -\frac{x^2}{16} + \frac{7x}{8} + \frac{3}{16}$$
$$g(x) = \frac{7x^2}{16} - \frac{x}{8} - \frac{117}{16}$$

N109

$$f(x) = -\frac{x^2}{16} + x + \frac{5}{4}$$
$$g(x) = \frac{5x^2}{16} - \frac{x}{2} - \frac{13}{4}$$

N110

$$f(x) = \frac{x^2}{9} + \frac{10x}{9} + \frac{61}{9}$$
$$g(x) = \frac{7x^2}{9} - \frac{2x}{9} + \frac{13}{9}$$

N111

$$f(x) = \frac{x^2}{4} + 3x + 12$$
$$g(x) = 2(x+2)(x+3)$$

N112

$$f(x) = \frac{x^2}{9} + \frac{14x}{9} + \frac{67}{9}$$
$$g(x) = \frac{8x^2}{9} + \frac{28x}{9} + \frac{11}{9}$$

N113

$$f(x) = \frac{x^2}{9} + \frac{7x}{9} - \frac{17}{9}$$
$$g(x) = \frac{5x^2}{9} - \frac{x}{9} - \frac{49}{9}$$

N114

$$f(x) = \frac{x^2}{9} + \frac{14x}{9} + \frac{49}{9}$$
$$g(x) = \frac{8x^2}{9} + \frac{28x}{9} - \frac{7}{9}$$

N115

$$f(x) = \frac{(x+2)(x+3)}{6}$$
$$g(x) = \frac{11x^2}{18} - \frac{x}{18} - \frac{23}{9}$$

N116

$$f(x) = \frac{(x+3)(x+13)}{8}$$
$$g(x) = \frac{(x+3)(11x+3)}{8}$$

N117

$$f(x) = -\frac{x^2}{32} + \frac{7x}{8} + 6$$
$$g(x) = \frac{15x^2}{32} + \frac{7x}{8} - 2$$

N118

$$f(x) = \frac{x^2}{9} + x + 7$$
$$g(x) = \frac{5x^2}{9} + x + 3$$

N119

$$f(x) = \frac{x^2}{9} + \frac{14x}{9} + \frac{76}{9}$$
$$g(x) = \frac{2x^2}{3} + \frac{8x}{3} + 4$$

N120

$$f(x) = \frac{x^2}{9} + \frac{4x}{3} + 6$$
$$g(x) = \frac{8x^2}{9} + \frac{4x}{3} - 1$$

N121

$$f(x) = -\frac{x^2}{16} + x + \frac{29}{4}$$
$$g(x) = \frac{3x^2}{8} - \frac{3x}{4} + 2$$

N122

$$f(x) = \frac{2x^2}{9} + \frac{16x}{9} + \frac{77}{9}$$
$$g(x) = \frac{7x^2}{9} + \frac{26x}{9} + \frac{37}{9}$$

N123

$$f(x) = \frac{x^2}{16} + x + 3$$
$$g(x) = \left(\frac{x}{2} + 2\right)(x - 2)$$

N124

$$f(x) = \frac{x^2}{8} + \frac{9x}{4} + 5$$
$$g(x) = \frac{15x^2}{8} + \frac{37x}{4} + 5$$

N125

$$f(x) = -\frac{x^2}{18} + \frac{7x}{6} + 3$$
$$g(x) = \frac{11x^2}{18} + \frac{7x}{6} - 3$$

N126

$$f(x) = \frac{x^2}{2} + 2x + 5$$
$$g(x) = \frac{x(7x + 8)}{4}$$

N127

$$f(x) = \frac{3x^2}{32} + \frac{7x}{8} + 7$$
$$g(x) = \frac{13x^2}{32} + \frac{7x}{8} + 2$$

N128

$$f(x) = -\frac{x^2}{8} + \frac{3x}{2} + \frac{77}{8}$$
$$g(x) = \frac{11x^2}{8} + \frac{9x}{2} + \frac{41}{8}$$

N129

$$f(x) = -\frac{x^2}{16} + \frac{7x}{8} + \frac{19}{16}$$
$$g(x) = \frac{3x^2}{8} - \frac{43}{8}$$

N130

$$f(x) = -\frac{x^2}{4} + \frac{3x}{2} + 7$$
$$g(x) = \frac{3x(x+1)}{2}$$

N131

$$f(x) = \frac{x(12-x)}{16}$$
$$g(x) = \frac{3x^2}{8} + \frac{3x}{4} - 7$$

N132

$$f(x) = \frac{(10-x)(x-1)}{9}$$
$$g(x) = \frac{2x^2}{3} - \frac{x}{3} - \frac{22}{3}$$

N133

$$f(x) = \frac{x^2}{18} + \frac{23x}{18} + \frac{56}{9}$$
$$g(x) = \frac{13x^2}{18} + \frac{47x}{18} + \frac{8}{9}$$

N134

$$f(x) = \frac{x^2}{9} + \frac{7x}{9} + \frac{28}{9}$$
$$g(x) = \frac{7x^2}{9} - \frac{5x}{9} - \frac{20}{9}$$

N135

$$f(x) = \frac{(24-x)(x+3)}{18}$$
$$g(x) = \frac{(x+3)(13x-18)}{18}$$

N136

$$f(x) = -\frac{x^2}{4} + x + \frac{33}{4}$$
$$g(x) = \frac{3(x+1)(x+2)}{2}$$

N137

$$f(x) = -\frac{x^2}{18} + \frac{19x}{18} + \frac{28}{9}$$
$$g(x) = \frac{11x^2}{18} + \frac{43x}{18} - \frac{20}{9}$$

N138

$$f(x) = -\frac{x^2}{16} + x + \frac{17}{4}$$
$$g(x) = \frac{(x-2)(5x+2)}{16}$$

N139

$$f(x) = \frac{x^2}{8} + \frac{7x}{4} + 8$$
$$g(x) = \frac{15x^2}{8} + \frac{7x}{4} + 1$$

N140

$$f(x) = \frac{x^2}{4} + 2x + 6$$
$$g(x) = \frac{x(7x+8)}{4}$$

N141

$$f(x) = \frac{3x^2}{8} + \frac{5x}{2} + \frac{65}{8}$$
$$g(x) = \frac{(x+1)(15x+29)}{8}$$

N142

$$f(x) = -\frac{x^2}{32} + \frac{15x}{16} + \frac{35}{32}$$
$$g(x) = \frac{15x^2}{32} - \frac{x}{16} - \frac{205}{32}$$

N143

$$f(x) = -\frac{x^2}{4} + x + 11$$
$$g(x) = \frac{3x^2}{2} + 8x + 11$$

N144

$$f(x) = -\frac{x^2}{9} + \frac{11x}{9} + \frac{71}{9}$$
$$g(x) = \frac{2x^2}{3} - \frac{x}{3} + \frac{5}{3}$$

N145

$$f(x) = \frac{x^2}{18} + \frac{23x}{18} + \frac{29}{9}$$
$$g(x) = \frac{13x^2}{18} + \frac{47x}{18} - \frac{19}{9}$$

N146

$$f(x) = -\frac{x^2}{16} + \frac{9x}{8} + \frac{111}{16}$$
$$g(x) = \frac{(x-1)(7x+9)}{16}$$

N147

$$f(x) = -\frac{x^2}{8} + \frac{3x}{2} + \frac{85}{8}$$
$$g(x) = \frac{11x^2}{8} + \frac{9x}{2} + \frac{49}{8}$$

N148

$$f(x) = -\frac{x^2}{16} + x + 1$$
$$g(x) = \frac{x^2}{2} + x - 8$$

N149

$$f(x) = \frac{3x^2}{32} + \frac{x}{2} + \frac{45}{8}$$
$$g(x) = \frac{15x^2}{32} - x + \frac{9}{8}$$

N150

$$f(x) = -\frac{x^2}{4} + x + \frac{25}{4}$$
$$g(x) = \frac{7x^2}{4} + 5x + \frac{1}{4}$$