

Polynomials

Multiplication with Addition and subtraction

1. $2(x + 3) = 2x + 6$
2. $6(x + 1) = 6x + 6$
3. $4(x + 5) = 4x + 20$
3. $7(3x + 5) = 21x + 35$
4. $3(9x + 7) = 27x + 21$
6. $5(4x + 7) = 20x + 35$
7. $6(3x - 1) = 18x - 6$
8. $8(5x - 3) = 40x - 24$
9. $4(12x - 8) = 48x - 32$
10. $4(-7x + 3) = -28x + 12$
11. $9(-4x + 7) = -36x + 63$
12. $12(-5x + 3) = -60x + 36$
13. $-1(5x + 2) = -5x - 2$
14. $-(3x + 1) = -3x - 1$
15. $-(7x + 2) = -7x - 2$
16. $-2(5x + 6) = -10x - 12$
17. $-3(2x + 5) = -6x - 15$
18. $-7(4x + 6) = -28x - 42$
19. $-4(5x - 8) = -20x + 32$
20. $-8(2x - 3) = -16x + 18$
21. $-4(7x - 2) = -28x + 8$
22. $-6(-4x - 3) = 24x + 18$
23. $-9(-2x - 5) = 18x + 45$
24. $-5(-3x - 7) = 15x + 35$
25. $2(3x^2 - 5x + 3) = 6x^2 - 10x + 6$
26. $3(5x^2 - 7x + 3) = 15x^2 - 21x + 9$
27. $6(-2x^2 + 5x - 2) = -12x^2 + 30x - 12$
28. $4(5x^3 + 4x^2 - 7x) = 20x^3 + 16x^2 - 28x$
29. $-2(5x^2 + 3x - 7) = -10x^2 - 6x + 14$
30. $-5(-4x^3 + 8x - 2) = 20x^3 - 40x + 10$
31. $2(x + 3) + 4(x + 6) = 2x + 6 + 4x + 24 = 6x + 30$
32. $5(2x + 3) + 4(x + 2) = 10x + 15 + 4x + 8 = 14x + 23$
33. $8(2x + 3) + 5(x + 4) = 16x + 24 + 5x + 20 = 21x + 44$
34. $4(3x - 2) + 5(2x - 3) = 12x - 8 + 10x - 15 = 22x - 23$
35. $7(2x - 6) + 3(3x - 5) = 14x - 42 + 9x - 15 = 23x - 57$
36. $3(6x - 1) + 2(8x - 3) = 18x - 3 + 16x - 6 = 34x - 9$
37. $4(3x + 5) - 6(2x + 3) = 12x + 20 - 12x - 18 = 2$
38. $5(3x + 1) - 4(2x + 3) = 15x + 5 - 8x - 12 = 7x - 7$

$$39. 8(2x + 3) - 5(3x + 4) = 16x + 24 - 15x - 20 = x + 4$$

$$40. -4(2x + 1) + 3(4x + 1) = -8x - 4 + 12x + 3 = 4x - 1$$

$$41. -6(2x + 5) + 3(7x + 2) = -12x - 30 + 21x + 6 = 9x - 24$$

$$42. -4(3x + 5) + 6(x + 5) = -12x - 20 + 6x + 30 = -6x + 10$$

$$43. -2(3x + 1) - 3(4x + 1) = -6x - 2 - 12x - 3 = -18x - 5$$

$$44. -4(3x + 5) - 3(6x + 2) = -12x - 20 - 18x - 6 = -30x - 26$$

$$45. -7(2x + 4) - 3(4x + 1) = -14x - 28 - 12x - 3 = -26x - 31$$

$$46. -6(5x - 3) - 7(2x - 4) = -30x + 18 - 14x + 28 = -44x + 46$$

$$47. -5(2x - 7) - 3(6x - 5) = -10x + 35 - 18x + 15 = -28x + 50$$

$$48. -3(6x - 2) - 5(4x - 3) = -18x + 6 - 20x + 15 = -38x + 21$$

$$49. 2(3x^2 + 7x - 3) + 4(2x^2 - 5x + 4) = 6x^2 + 14x - 6 + 8x^2 - 20x + 16 = 14x^2 - 6x + 10$$

$$50. 5(4x^2 + 6x - 5) + 3(2x^2 - 7x - 1) = 20x^2 + 30x - 25 + 6x^2 - 21x - 3 = 26x^2 + 9x - 28$$

$$51. 7(4x^2 - 3x - 7) + 5(3x^2 - 9x - 8) = 28x^2 - 21x - 49 + 15x^2 - 45x - 40 = 43x^2 - 66x - 89$$

$$52. 4(3x^2 - x + 5) - 5(4x^2 - 6x + 7) = 12x^2 - 4x + 20 - 20x^2 + 30x - 35 = -8x^2 + 26x - 15$$

$$53. 5(2x^2 - 6x + 3) - 4(3x^2 - 5x - 2) = 10x^2 - 30x + 15 - 12x^2 + 20x + 8 = -2x^2 - 10x + 23$$

$$54. 3(-6x^2 - 7x + 1) - 4(2x^2 - 8x + 3) = -18x^2 - 21x + 3 - 8x^2 + 32x - 12 = -26x^2 + 11x - 9$$

$$55. -5(x^2 - 3x + 5) + 3(2x^2 - 7x + 2) = -5x^2 + 15x - 25 + 6x^2 - 21x + 6 = x^2 - 6x - 19$$

$$56. -3(4x^2 - 3x + 2) + 5(2x^2 - x - 9) = -12x^2 + 9x - 6 + 10x^2 - 5x - 45 = -2x^2 + 4x - 51$$

$$57. -3(2x^2 - x - 7) - 4(x^2 - 6x + 3) = -6x^2 + 3x + 21 - 4x^2 + 24x - 12 = -10x^2 + 27x + 9$$

$$58. -5(-4x^2 + 7x + 1) - 3(5x^2 + x - 6) = 20x^2 - 35x - 5 - 15x^2 - 3x + 18 = 5x^2 - 38x + 13$$

$$59. 3(x^2 + 5xy + y^2) + 4(x^2 + 7xy + y^2) = 3x^2 + 15xy + 3y^2 + 4x^2 + 28xy + 4y^2 = 7x^2 + 43xy + 7y^2$$

$$60. \frac{2(3x^2 - 5xy + y^2) + 3(4x^2 + 2xy + 7y^2)}{18x^2 - 4xy + 23y^2} = \frac{6x^2 - 10xy + 2y^2 + 12x^2 + 6xy + 21y^2}{18x^2 - 4xy + 23y^2} =$$

$$61. -5(5mn + 7mp) - 4(9mn - 8mp) = -25mn - 35mp - 36mn + 32mp = -61mn - 3mp$$

$$62. 8(3ab - 6cd) - 7(2ab - 6cd) = 24ab - 48cd - 14ab + 42cd = 10ab - 6cd$$

$$63. -8(2ab - 7mn) + 4(5mn - 4ab) = -16ab + 56mn + 20mn - 16ab = -32ab + 76mn$$

$$64. -6(2abc - 4ef) + 9(4abc + 5ef) = -12abc + 24ef + 36abc + 45ef = 24abc + 69ef$$

$$65. \frac{-2(x^3 + 5x^2 - 7x) + 6(3x^3 + x^2 - 5x)}{16x^3 - 4x^2 - 16x} = \frac{-2x^3 - 10x^2 + 14x + 18x^3 + 6x^2 - 30x}{16x^3 - 4x^2 - 16x} =$$

$$66. -3(2x^3 + 4x - 7) - 2(5x^2 + 6x + 3) = -6x^3 - 12x + 21 - 10x^2 - 12x - 6 = -6x^3 - 10x^2 - 24x + 15$$

$$67. \frac{-4(3x^4 - 6x^2 + 4x) - 2(4x^4 - 9x^2 + 8x)}{-20x^4 + 44x^2 - 32x} = \frac{-12x^4 + 24x^2 - 16x - 8x^4 + 18x^2 - 16x}{-20x^4 + 44x^2 - 32x} =$$

$$68. \frac{-3(2x^5 + 4x^3 - 5x) - 2(3x^5 + 2x^3 + 2x)}{-12x^5 - 12x^3 + 11x} = \frac{-6x^5 - 8x^3 + 15x - 6x^5 - 4x^3 - 4x}{-12x^5 - 12x^3 + 11x} =$$

$$69. 3(4x - 5) + 2(2x - 7) - 6(3x + 4) = 12x - 15 + 4x - 14 - 18x - 24 = -2x - 53$$

$$70. -2(5x + 1) - 4(x - 4) + 3(2x + 3) = -10x - 2 - 4x + 16 + 6x + 9 = 9x + 23$$

$$71. 6(-3x + 1) - 4(2x - 5) - 3(7 - 2x) = -18x + 6 - 8x + 20 - 21 + 6x = -20x + 5$$

$$72. -4(x^2 + x) - 7(3x + 4) + 5(2x^2 + 1) = -4x^2 - 4x - 21x - 28 + 10x^2 + 5 = 6x^2 - 25x - 23$$

$$73. \frac{-5(4y - 6) + 3(2y^2 - 5) - 4(3y^2 + 2y)}{-6y^2 - 28y + 9} = \frac{-20y + 30 + 6y^2 - 15 - 12y^2 - 8y}{-6y^2 - 28y + 9} =$$

$$74. \frac{2(3x^3 + 6x^2) - 5(2x^2 + x^3) + 4(4x^3 + 5x^2)}{17x^3 + 22x^2} = \frac{6x^3 + 12x^2 - 10x^2 - 5x^3 + 16x^3 + 20x^2}{17x^3 + 22x^2} =$$