

Adding and Subtracting Polynomials

Add.

1. $(3x + 4) + (5x - 7)$

2. $(5x^3 - 8x^2 + 3) + (3x^2 - 2x + 4)$

3. $(-12x^8 + 13x^5 - 4x) + (17x^8 - 11x^5 - 6x)$

4. $(2x + 5y) + (3y - 4x)$

5. $(3xy + 5x + 7y) + (2xy - 4x - 6y)$

6. $(-7xy^2 - 3x^2y) + (4x^2y - 6x^2y^2 - xy^2)$

7. $(17x^2 + 15x - 18) + (-6x^2 - 6x + 14)$

8. $(14x^2 - 9x + 8) + (10x^2 - 7x - 4) + (15x^2 - 16x + 7)$

Answers: 1. $8x - 3$ 2. $5x^3 - 5x^2 - 2x + 7$ 3. $5x^8 + 2x^5 - 10x$ 4. $-2x + 8y$

5. $5xy + x + y$ 6. $-8xy^2 + x^2y - 6x^2y^2$ 7. $11x^2 + 9x - 4$

8. $39x^2 - 32x + 11$

Subtract.

9. $(8x + 10) - (18x + 20)$

10. $(19x^2 + 18x + 10) - (18x^2 + 9x + 14)$

11. $(-5x^7 + 8x^2 + 12) - (-6x^7 - 12x^6 + 10x^2)$

12. $(-7x^4 + 14x^2 + 7) - (-10x^4 - 17x^3 - 18x^2)$

13. $(8x^2 + 11x - 18) - (-7x^2 + 4x + 8) - (-13x^2 + 14x + 10)$

14. Subtract $11x^3 + 18x^2 + 15$ from $5x^6 + 6x^5 + 19x^4$

15. $(-13x^2 - 16x + 8) - (-12x^2 - 4x + 9)$

Answers: 9. $-10x - 10$ 10. $x^2 + x - 4$ 11. $x^7 + 12x^6 - 2x^2 + 12$

12. $3x^4 + 17x^3 + 32x^2 + 7$ 13. $28x^2 - 7x - 36$ 14. $-8x^2 + 22x + 4$

15. $-x^2 - 12x - 1$