Learning Leap

Math — Operations | Grade 9

Name: _____ Date: _____ Score: _____ / 19

Adding & Subtracting Polynomials

Collecting like terms and subtracting a whole bracket correctly.

Like terms	Subtracting	Degree	Check
same variable and exponent	change every sign inside	highest exponent	substitute a number

Section A — Adding

Simplify fully.

1. (3x + 5) + (2x + 4) = _____

2. (7x - 2) + (x + 6) = _____

3. (4x + 9) + (5x - 3) = _____

4. (6x + 1) + (2x + 8) = _____

5. (2x - 7) + (9x + 3) = _____

6. (8x + 4) + (-3x + 5) = _____

Section B — Subtracting

Watch every sign.

7. (7x + 5) - (3x + 2) = _____

8. (9x - 1) - (4x + 6) = _____

9. (5x + 8) - (2x - 3) = _____

10. (6x + 4) - (8x + 7) = _____

11. (3x - 2) - (5x + 1) = _____

12. (10x + 6) - (4x + 9) = _____

Section C — Quadratic Terms

Simplify fully.

13. (2x^2 + 3x + 1) + (4x^2 + 5x + 2) = _____

14. (3x^2 - x + 2) + (5x^2 + x + 3) = _____

15. (x^2 + 6x + 4) + (2x^2 + 3x + 7) = _____

16. (5x^2 + 2x + 3) + (x^2 + 2x + 4) = _____

Section D — Thinking About Polynomials

Answer as asked.

17. A rectangle is (2x + 3) by (x + 1). Write its perimeter.

18. What is a like term?

19. Simplify 5x + 3y - 2x + 7y.

Adding & Subtracting Polynomials — Answer Key

For marking. Accept equivalent correct forms.

Section A — Adding

1. 5x + 9

2. 8x + 4

3. 9x + 6

4. 8x + 9

5. 11x - 4

6. 5x + 9

Section B — Subtracting

7. 4x + 3

8. 5x - 7

9. 3x + 11

10. -2x - 3

11. -2x - 3

12. 6x - 3

Section C — Quadratic Terms

13. 6x^2 + 8x + 3

14. 8x^2 + 5

15. 3x^2 + 9x + 11

16. 6x^2 + 4x + 7

Section D — Thinking About Polynomials

17. 6x + 8

18. a term with the same variable and exponent

19. 3x + 10y