

Name: _____

Date: _____

Simplifying Polynomial Expressions **Answers**

Section I. Add and Subtract the polynomials

1. $(2x + 9) + (4x - 1)$

$$6x + 8$$

2. $(9y - 7) - (3y - 5)$

$$6y - 2$$

3. $(4f - 6) + (11f - 5)$

$$15f - 11$$

4. $(5k + 3) - (k + 12)$

$$4k - 9$$

5. $(3x^2 + 7x - 8) + (2x^2 - 4x - 6)$

$$5x^2 + 3x - 14$$

6. $(m^2 + 2m - 11) - (8m^2 - 2m - 9)$

$$-7m^2 + 4m - 2$$

7. $(7g^2 + 3g + 1) - (2g^2 + 15)$

$$5g^2 + 3g - 14$$

8. $(6a^2b - 9a + 4b) + (17a - 21b)$

$$6a^2b + 8a - 17b$$

Section II. Multiply the monomial by the polynomial.

9. $2h(7h - 9)$

$$14h^2 - 18h$$

10. $-3b(8b - 12)$

$$-24b^2 + 36b$$

11. $7k(4k^2 + 8k)$

$$28k^3 + 56k^2$$

12. $9xy(3x + 8y)$

$$27x^2y + 72xy^2$$

13. $8h(6h^2 + 7h - 4)$

$$48h^3 + 56h^2 - 32h$$

14. $-4vw^2(3v - 12w^2 - 2)$

$$-12v^2w^2 + 48vw^4 + 8vw^2$$

15. $-6a^2b(-6a - 3ab + 5b^2)$

$$36a^3b + 18a^3b^2 - 30a^2b^3$$

16. $pj(3mj + 2pq - 15)$

$$3j^2mp + 2jp^2q - 15jp$$