

1.3 Practice Set

1. What is the degree of a polynomial? Give an example.

Give the degree for each of the following polynomials and state whether each is a monomial, binomial, trinomial or none of these.

2. 21

3. $4x^3y$

4. $7x + 0.8$

5. $y^2 + 3y - 5$

6. $x^2y^4 - 5xy^3 + 4y - x^6$

Perform the indicated operations and/or simplify each of the following.

7. $-8x^2 - 3xy + 4y^2 - x^2 - xy + 3y^2$

8. $(7y^2 + 3y - 5) + (3y^2 - 8y - 2)$

9. $(9x^3y^4 - 3x^2y - 4) + (7x^3y^4 - 3x^2y + 2x)$

10. $(13x^2 - 10x + 3) - (4x^2 - 6x + 7)$

11. $(11xy - 15x^2y + 7y^2) - (19x^2 - 13x^2y - 7y^2)$

12. $-3(x^2 - 2x + 5)$

13. $(5x^5)(-5x^9)$

14. $7y(8y + 9)$

15. $6yz(xy^4 + x^5z - 4)$

16. $(r + 5)(r - 7)$

17. $(7x^2 - 5y^2)(x^2 - 3y^2)$

18. $(s - t)(s + t)(s^2 + t^2)$

19. $(9x + y)^2$
20. $(8z^3 + 5)(2z^2 + 7z - 3)$
21. $(5x - 3)(x - 2)$
22. $(3s - 4)^2$
23. $(9x + 4)(9x - 4)$
24. $x(4x + 1)(x - 1) - (2x - 3)(x - 2)$
25. $(3x + 1)^2 + 2x(x + 3)(x - 1)$

Distributed Practice Problems

Simplify completely and write answers with positive exponents.

26. $(5x^2y^4)^{-2}(2x^{-1}y^3)^3$
27. $b^5(a^3b^5c)^{-4}$

Solve each of the following equations for the indicated variable.

28. $|2z - 7| = -5$
29. $5 - 2|6 - x| = -15$
30. $P = 2xy + 3yz + 4xz$ for z