NAME _____   **DATE** _____

Module Test B

Module 2

1. Identify the coefficient of each monomial.

   a. $-5k^3$ _____

   b. $\dfrac{5p}{6}$ _____

   c. $-0.25x$ _____

   d. B _____

2. Write an algebraic expression for each word phrase.

   a. has a coefficient of -7 with one variable _____

   b. has a cubed variable with a coefficient of $-\dfrac{3}{4}$ _____

   c. has a decimal coefficient with two variables _____

   d. is a constant _____

3. Identify each polynomial as a *monomial, binomial,* or *trinomial.*

   a. $5x + 3y^2 + 4xz$ _____

   b. $5e + 11d^2$ _____

   c. $r^3 - 5r^2v + 9z$ _____

   d. $-2d^5$ _____

4. Find the degree of each polynomial.

   a. -12 _____

   b. $-15x^5y + y^4$ _____

   c. $5a^7b + 3a^3b^3 - 2a^2b + 1$ _____

   d. $\dfrac{2}{3}g^3h - 9g^2h^3$ _____

5. Give an example for each of the following.

   a. monomial _____

   b. binomial _____

   c. trinomial _____

   d. monomial with two variables _____

Write an algebraic expression for each word phrase.

6. eight more than the reciprocal of y _____

7. the sum of a number and sixteen _____

8. nine less than negative twelve times x _____

9. -19 times the difference V minus 11 _____

10. one third the product of a variable k and 37 _____

Name the property each statement illustrates.

11. $3T + (-3T) = 0$ _____

12. $4(g - 3) = 4g - 12$ _____

13. $9 + (3 + 5) = (3 + 5) + 9$ _____

14. $a \cdot (b \cdot c) = (a \cdot b) \cdot c$ _____

Write the opposite and reciprocal of each expression.

15. a. $-\dfrac{7w}{5}$ _____

    b. 1 _____

Simplify each expression.

16. $7h + h$ _____

17. $5 - x^3 + 7x^2 - 9 - 2x^3 + 3x^2$ _____

18. $h^2(5h + 7) - 11h + 2(6h - 2)$ _____

19. $m^3 + 7m^3 - 3u - 16m + 3m^2 + 7u$ _____

20. $7 - 2(5y - 3x)$ _____

21. Evaluate $t^3v^2 - t + 13v^2$ for $t = -2$ and $v = 1$ _____

Evaluate the expression $\sqrt{b^2 - 4ac}$ for the given values of the variables.

22. $a = 4, b = 4, c = 1$ _____

23. $a = -2, b = -1, c = 6$ _____

Evaluate each expression when $x = 0$, $y = -3$, and $z = -2$.

24. $\dfrac{4z + xy^2 - 2x}{3z + 2x - 7y}$ _____

25. $x^2 + y^3 - 2z + |3xy^3 - xz|$ _____