LESSON

Understanding Polynomial Expressions

Practice and Problem Solving: A/B

Identify each expression as a monomial, a binomial, a trinomial, or none of the above. Write the degree of each expression.

1.
$$6b^2 - 7$$

2.
$$x^2y - 9x^4y^2 + 3xy$$

4.
$$3p + \frac{2p}{q} - 5q$$

5.
$$4ab^5 + 2ab - 3a^4b^3$$

6.
$$st + t^{0.5}$$

Simplify each expression.

7.
$$6n^3 - n^2 + 3n^4 + 5n^2$$

8.
$$c^3 + c^2 + 2c - 3c^3 - c^2 - 4c$$

9.
$$11b^2 + 3b - 1 - 2b^2 - 2b - 8$$

10.
$$a^4b^3 + 9a^3b^4 - 3a^4b^3 - 4a^3b^4$$

11.
$$9xy + 5x^2 + 15x - 10xy$$

12.
$$3p^2q + 8p^3 - 2p^2q + 2p + 5p^3$$

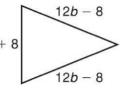
Determine the polynomial that has the greater value for the given value of x.

13.
$$4x^2 - 5x - 2$$
 or $5x^2 - 2x - 4$ for $x = 6$

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$$4x^2 - 5x - 2$$
 or $5x^2 - 2x - 4$ for $x = 6$ 14. $6x^3 - 4x^2 + 7$ or $7x^3 - 6x^2 + 4$ for $x = 3$

Solve.

15. A rocket is launched from the top of an 80-foot cliff with an initial velocity of 88 feet per second. The height of the rocket t seconds after launch is given by the equation $h = -16t^2 + 88t + 80$. How high will the rocket be after 2 seconds?



16. Antoine is making a banner in the shape of a triangle. He wants to line the banner with a decorative border. How long will the border be?