

## Mid-Chapter 15 Test Review

State whether each expression is a polynomial. If it is, identify it as a monomial, binomial, or trinomial.

1.)  $3x$

monomial

2.)  $3 + x + x^2$

trinomial

3.)  $\frac{3}{x}$

NOT  
a polynomial

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Find the degree of each polynomial.

4.)  $5x$

1

6.) 12

0

5.)  $x^2 + 3x$

2

7.)  $6xy^4z^3$

8

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Find each sum or difference.

$$8.) (3x + 2) + (5x + 3)$$

$$8x + 5$$

$$9.) (6a^2 + 4) + (8a^2 - 3a + 6)$$

$$10 + 14a^2 - 3a$$

$$14a^2 - 3a + 10$$

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Find each sum or difference.

$$10.) (2x^2 - 3x + 4) + (-6x^2 - 5x - 8)$$

$$-4x^2 - 8x - 4$$

$$11.) (9y - 3) + (4y - 7)$$

$$5y - 10$$

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Find each sum or difference.

12.)  $(-12x^2 - 3) - (6x^2 - 4x + 8)$

$$-18x^2 + 4x - 11$$

13.)  $(7y^2 - 3y + 4) + (-8y^2 + 6y + 8)$

$$-1y^2 + 3y + 12$$

## Mid-Chapter 15 Test Review

Simplify.

14.)  $(p^2q)^3$

$$p^6q^3$$

15.)  $(-2x)^3$

$$\begin{aligned} & -2x^3 \\ & -2 \cdot -2 \cdot -2 \\ & 4 \cdot -2 = -8 \\ & -8x^3 \end{aligned}$$

16.)  $4yz(2y^2z^3)^2$

$$16 \cdot y^5 \cdot z^7$$