

## Identifying Parts and Translating Expressions

Name: Key Class Period: \_\_\_\_\_

1. Identify each term, coefficient, constant, and factor in  $5x^2 + 3x + 12$ .

terms:  $5x^2, 3x, 12$  constant:  $12$

coefficients:  $5 + 3$  factors:  $5 + x^2, 3 + x$

2. Write an expression with 4 terms, containing the coefficients 3, 6, and 9.

$$3x^3 + 6x^2 + 9x - 8$$

Translate each verbal expression to an algebraic expression.

3. Eight more than 3 times a number

$$3x + 8$$

4. The difference of 10 and a number

$$10 - x$$

5. The quotient of 12 and a number

$$\frac{12}{x}$$

6. 15 less than twice a number

$$2x - 15$$

7. Three-fourths times the square of a number

$$\frac{3}{4}x^2$$

8. The product of 5 and the cube of a number increased by the difference of 6 and  $x$

$$5x^3 + (6 - x)$$

9. Half the sum of  $x$  and  $y$  decreased by one-third of  $y$

$$\frac{x+y}{2} - \frac{y}{3}$$

10. The sum of a number and six, divided by eight

$$\frac{x+6}{8}$$

Translate each algebraic expression to a verbal expression.

11.  $25 - x$

The difference of 25 and  $x$ .

12.  $x^4 - 12$

$x$  to the fourth power minus twelve.

13.  $3 + \frac{1}{2}x$

Three plus one-half of  $x$ .

14.  $8^2 - x$

Eight squared minus  $x$ .

15.  $\frac{6-x}{13}$

The quotient of six minus  $x$  and 13.

16.  $25(6+x)$

Twenty-five times the sum of six and  $x$ .