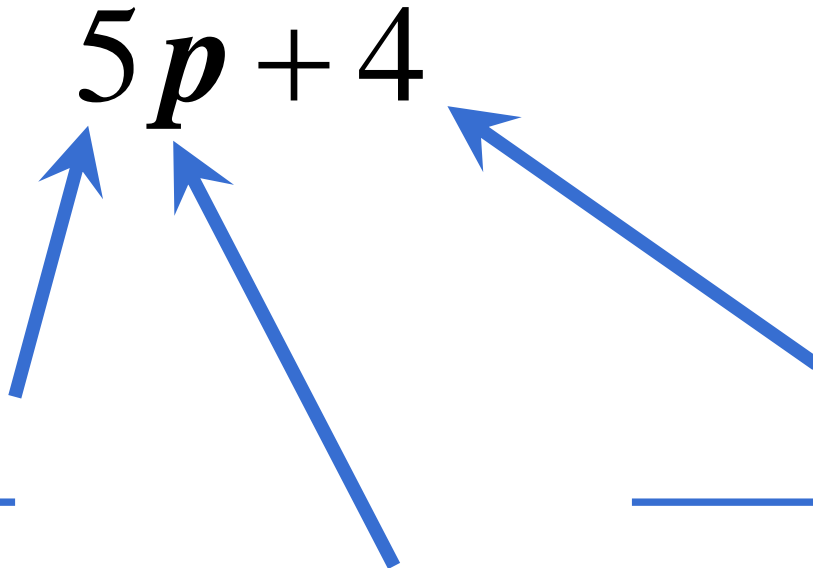


7.1

Writing Equations in One Variable

Parts of Algebraic Expressions

An _____ is a mathematical phrase that may contain numbers, operations, and one or more symbols.



The _____ of an algebraic expression are the parts that are separated by addition.

Parts of Algebraic Expressions Vocabulary

$$7b + 9$$

Coefficient – The _____ being _____ to the variable.

Variable – A _____ that represents a number in an expression.

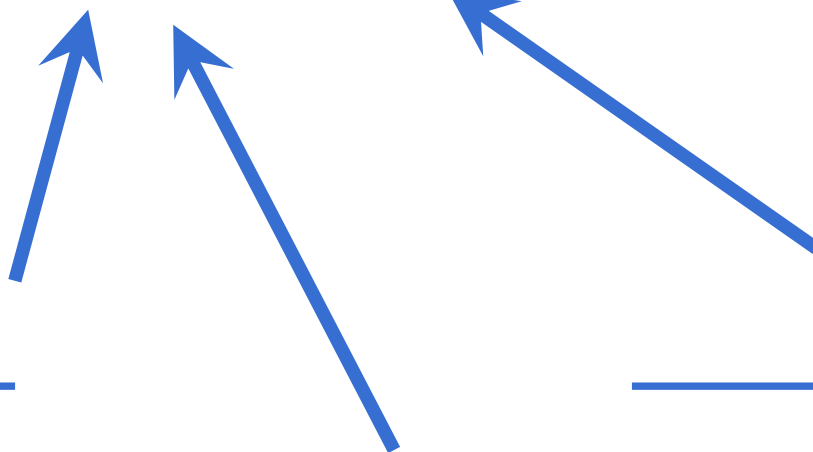
Constant – A _____ by itself and not attached to a variable.

Term – The parts that are separated by _____.

Parts of Algebraic Expressions

An _____ is a mathematical phrase that may contain numbers, operations, and one or more symbols.

$$4a + 27$$



The _____ of an algebraic expression are the parts that are separated by addition.

Review: Parts of Alg. Expressions

Identify the terms, coefficients, and constants in the expression.

1) $5x^2 + 63 + 6y^2$

Terms: _____

Coefficients: _____

Constants: _____

2) $8a^2 + 9b + \frac{3}{5}c^2$

Terms: _____

Coefficients: _____

Constants: _____

Evaluating Algebraic Expressions

Evaluate the expression when $a = 7$, $b = 8$, $c = 5$.

1) $a + b$

3) $b - a$

2) ab

4) $\frac{56}{b}$

Evaluating Algebraic Expressions

Evaluate the expression when $a = 7$, $b = 8$, $c = 5$.

5) $6a - b$

6) $c^2 + 9b$

Evaluating Algebraic Expressions

Evaluate the expression when $a = 7$, $b = 8$, $c = 5$, $d = \frac{2}{3}$

7) $2b \div d$

8) $a^2 - 8.12$

Expressions vs Equations

An equation is a mathematical sentence that uses an equal sign, =, to show that two expressions are equal.

Expressions

Expressions

Key Words

+

-

×

÷

Translating variable expressions

Write the phrase as an expression.

- 1) the sum of 18 and 35 is 53.
- 2) 6 times 50 is 300.
- 3) 25 less than a number b is 37.
- 4) a number x divided by 4 is -8.
- 5) the total of a number t and 11 is -31.
- 6) 100 decreased by a number k is 2.

Translating variable expressions

7) $10t = 25$

8) $n + 3.2 = -7.8$

9) $x - 6 = 15$

10) $\frac{y}{20} = 17$

Key Vocabulary

Algebraic Expression

Coefficient

Constant

Term

Evaluate

Equation