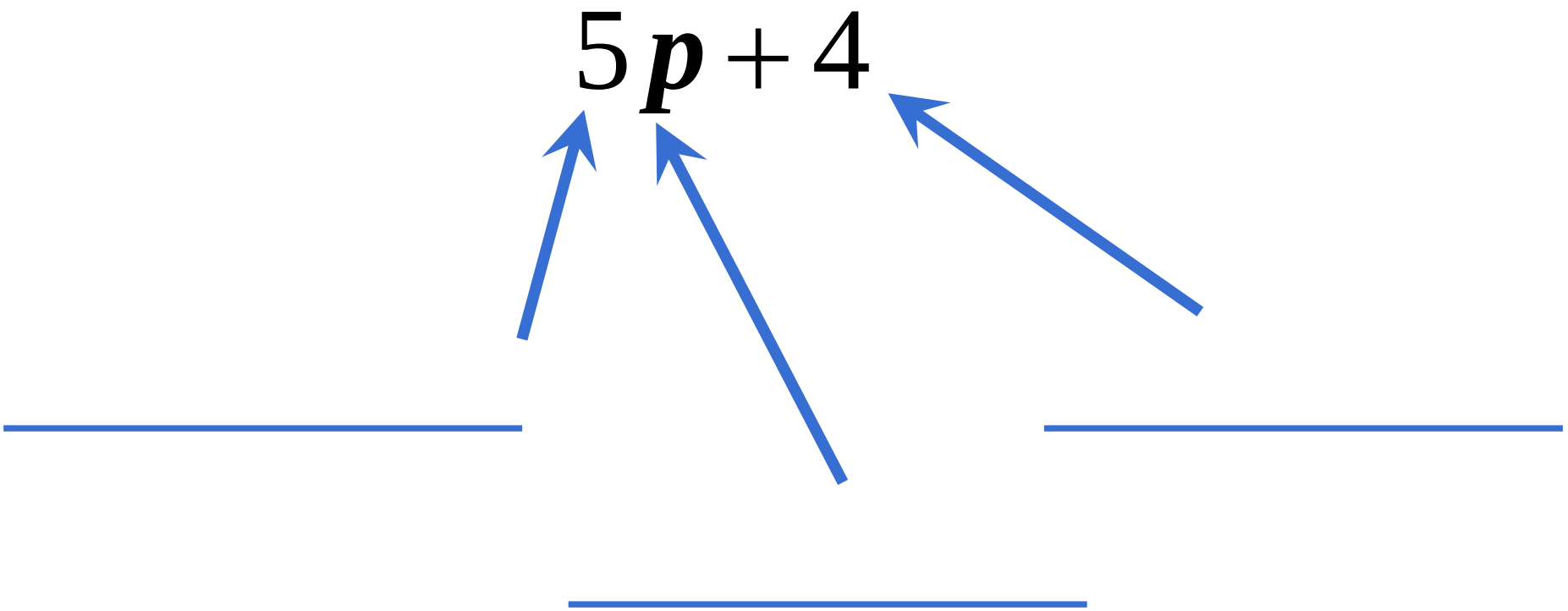
Unit 1

Solving Basic Equations Review

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

$$7\boldsymbol{b}+9$$

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 _____.

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:_____

Solving Basic Equations

1) $10t = 25$

2) $n + 3.2 = -7.8$

3) $x - 6 = 15$

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

5) $\frac{1}{2}x = 10$

6) $\frac{2}{3}x = 4$

Simplifying Algebraic Expressions

1) Use **the Distributive Property to simplify the expression.**

$$4(n+5)$$

Simplifying Algebraic Expressions

2) Use **the Distributive Property to simplify the expression.**

$$12(2y-3)$$

Simplifying Algebraic Expressions

2) Use **the Distributive Property to simplify the expression.**

$$9(6 + x + 2)$$

Like Terms

These are terms with the exact same variable and power

$8x$ $12x$ $-3x$

$5x$

Unlike Terms

These are terms with the different variables and powers

8 $12x$ $-3a$

$5x^2$

Simplifying

$$5n + 3n$$

Simplifying

$$7p + 2p$$

You try some.

$$4x + 12x =$$

$$5b + 14b =$$

$$15c - 9c =$$

$$10f - 2f =$$

Now, what if you were asked to simplify an expression like this:

$$2a + 3a + 4a$$

How in the world would you simplify an expression like this?

$$2a + 3a + 4d$$

Practice

Simplify the following.

$4x + 8y + 3x = 7x + 8y$

(like terms)

$5y + 8y + 4z =$

(like)

$3 + 9b + 10 =$

$8x^2 + 2x^2 + 7x =$

$6xy + 3xy + 3x =$

$3ab + 10a + 8a =$

$6a + 7b + 5a + 7b = 11a + 14b$

$3x + 6y + 2y + 8x =$

$9x^2 + 10 + 4x^2 + 7 =$

Simplify the expressions

1) $7k + 10 - 4k - 7$

2) $10x + 4.5 - x - 4$

3) $5.7p + 3 - 2.4p - 2p$