3.1

Algebraic Expressions

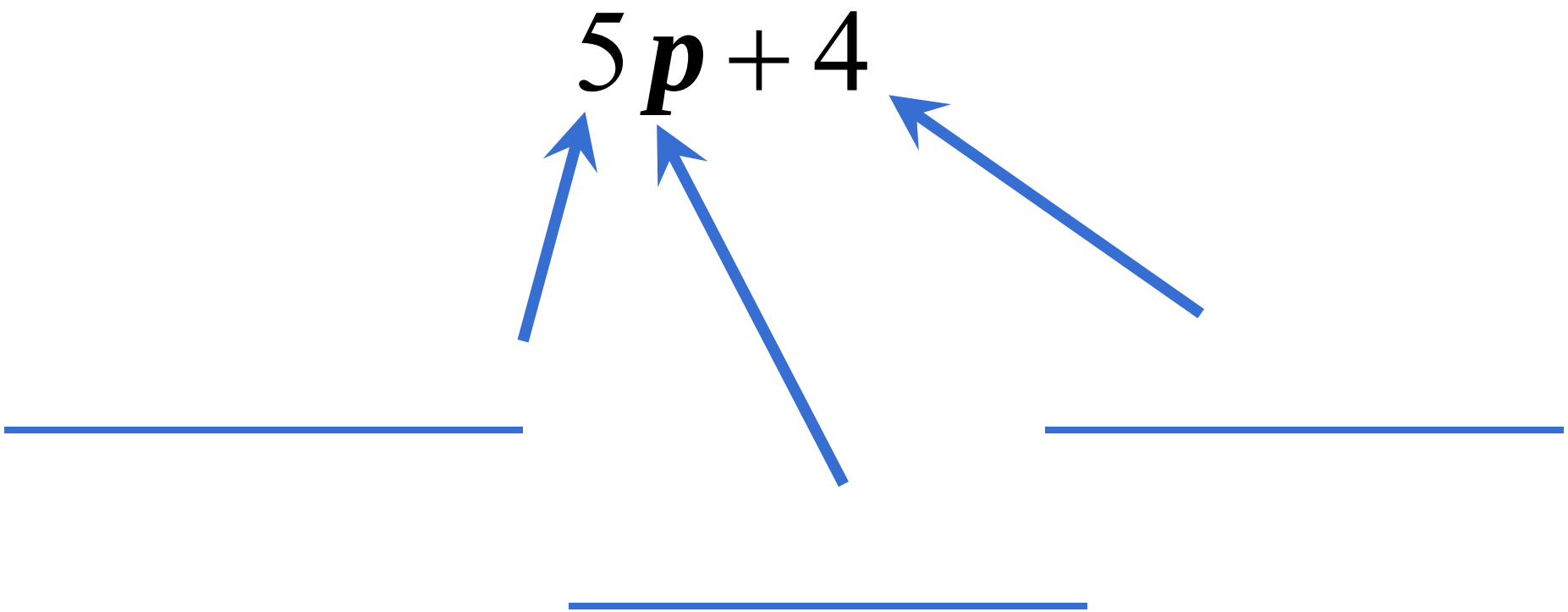
Do Now

1) $96.5 - 8.512$

2) $0.8 \div 0.2$

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 _____.

Practice

For the following:

Highlight in yellow the coefficient

Highlight in pink the variable

Highlight in green the constant

Underline in red the terms

1) $5x+13$

2) $2z^2+y+3$

Practice

For the following:

Highlight in yellow the coefficient

Highlight in pink the variable

Highlight in green the constant

Underline in red the terms

3) $12+10c$

4) $15+3w+\frac{1}{2}$

5) z^2+9z

Writing Algebraic Expressions Using Exponents

1) $d \cdot d \cdot d \cdot d \cdot d$

2) $x \cdot x \cdot x \cdot x \cdot y \cdot y \cdot y$

3) $12 \cdot f \cdot f \cdot f \cdot f$

4) $1.5 \cdot j \cdot j \cdot k \cdot k \cdot k$

Evaluating Algebraic Expressions

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

1) $a + b$

2) ab

3) $b - a$

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) $a^2 - 8.12$

Evaluating Algebraic Expressions

You are saving money to buy a skateboard. You begin with $45 and you save $3 each week. The expression $45 + 3w$ gives the amount of money you save after w weeks.

a. How much will you have after 4 weeks, 10 weeks, and 20 weeks?

b. After 20 weeks, can you buy the skateboard? Explain.

a)

Number of Weeks, *w*	45+3w	Amount Saved

b)

Key Vocabulary

Algebraic Expression
Coefficient
Constant
Term
Evaluate