

Equation Vocabulary

Reporting Category Patterns, Functions, and Algebra

Topic Solving one-step linear equations in one variable

Primary SOL 6.18 The student will solve one-step linear equations in one variable involving whole number coefficients and positive rational solutions.

Materials

- Equation Vocabulary Organizer (attached)
- Sets of colored pencils or markers
- Equation Vocabulary Example handout (attached)
- Equation Vocabulary Example Key (attached)
- Equation Vocabulary handout (attached)
- Equation Vocabulary Exit Card (attached)
- Vocabulary flashcards

Vocabulary

equation, expression, variable, term, coefficient, equality

Student/Teacher Actions (what students and teachers should be doing to facilitate learning)

1. Distribute copies of the Equation Vocabulary Organizer, and review the words with the class. Ask students for examples of each word in the context of equations, and list them on the board. Make sure students understand the difference between the meanings of *term* and *expression*, which can be difficult to grasp.
2. Distribute sets of colored pencils or markers and copies of the Equation Vocabulary Example handout. Have students use the vocabulary words to name the components of the equation, using a different color for each word. Also, have students write definitions of each vocabulary word without referring to the organizer. Then, display the Equation Vocabulary Example Key, and have students correct their handout, as needed.
3. Distribute copies of the Equation Vocabulary handout, and have students work in pairs to complete it. When all student pairs are finished, review the sheet with the entire class.
4. At the end of the class, have students complete the Equation Vocabulary Exit Card and hand it in for assessment.

Assessment

- **Questions**
 - What are three examples of equations?
 - What are three examples of expressions?
 - What are three examples of terms?
 - What is a one-term expression that has a coefficient?
 - What is an expression with four terms?
 - How do you know when a number is a coefficient in a term and when it is a term?

- **Journal/Writing Prompts**

- Using the number sentence $2xy + 3w - 1 = y + 2$,
 - write as many sentences as you can, using the word *expression*
 - write as many sentences as you can, using the word *coefficient*
 - write as many sentences as you can, using the word *variable*
 - write a sentence using the words *term* and *product*.
- Write a sentence, using the words *equations* and *expression*.
- Write three different expressions, using the number 2.
- Write an equation, using mathematical operators and 3, x , y , 9, and b .
- Write a one-term expression, using any mathematical operator and 4, a , and b .
- Write a two-term expression, using any mathematical operator and 4, a , and b .

- **Other**

- Have students make their own set of flashcards for the equation vocabulary used in this lesson.

Extensions and Connections (for all students)

- Have students look up the vocabulary words and see how they are used in other contexts, such as Language Arts and Science.

Equation Vocabulary Organizer

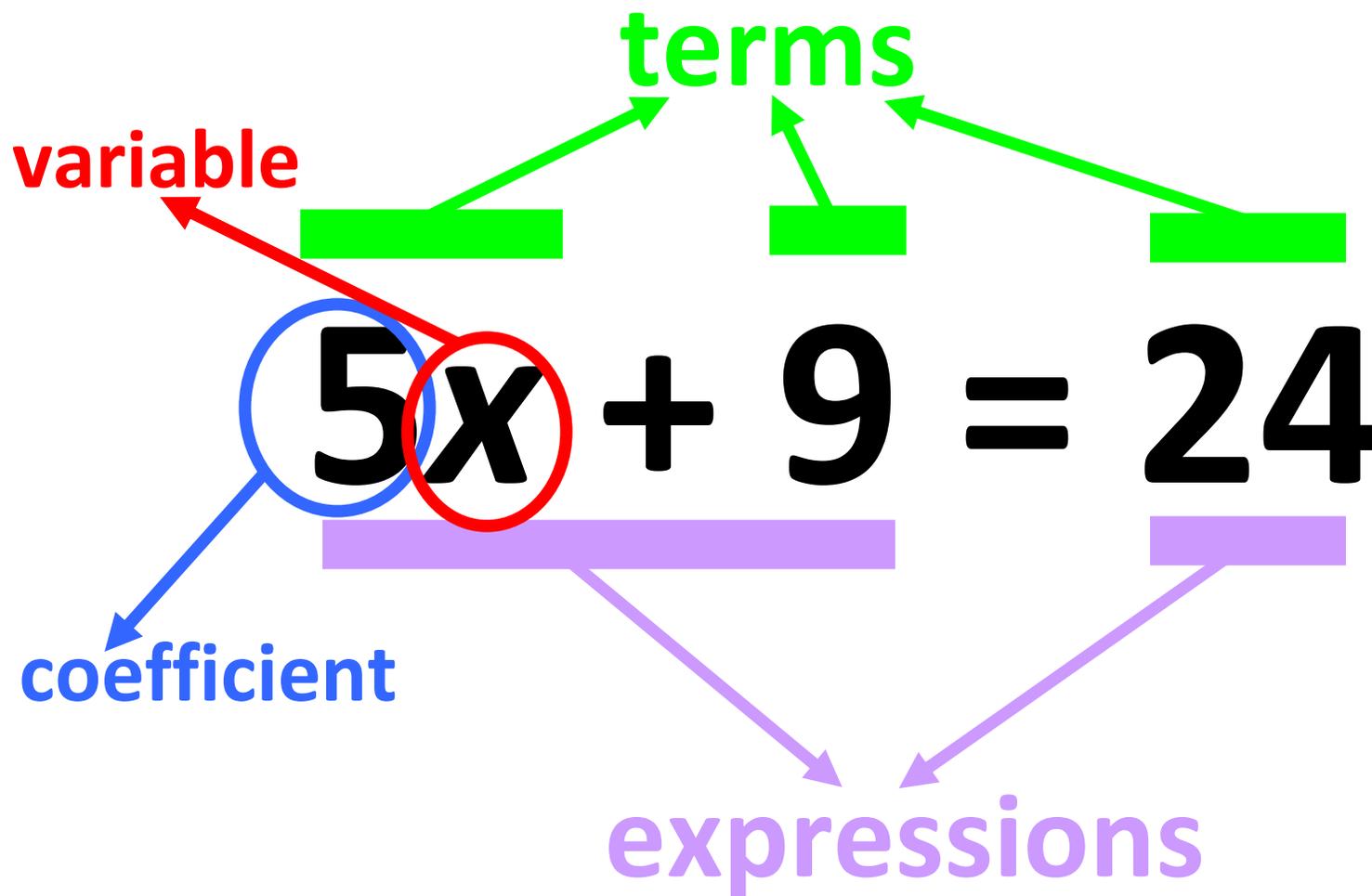
Word	Definition
Variable	A symbol for an unknown value. Usually a letter, such as a , x or y , is the symbol used for a variable.
Constant	A number on its own
Coefficient	A number that is multiplied by a variable. Example: $8y$ means 8 times y ; 8 is the coefficient, and y is the variable.
Operator	A symbol (+, \times , $-$, or \div) representing a mathematical operation
Term	Either a single number, a variable, or numbers and/or variables multiplied together Examples: 4 45 x abc $5w$ $20mn$
Expression	A term or a combination of terms and operators Examples: 2 $2x$ $2x+7$ y $y-3$ $7w+3$ $8ab+9$ $5xyz$
Equation	A mathematical sentence stating that two expressions are equal

Equation Vocabulary Example

Name _____ Date _____

$$5x + 9 = 24$$

Equation Vocabulary Example Key



Equation Vocabulary

Name _____ Date _____

<p>In $3x + 7 = 32$, 7 is a/an _____.</p>	<p>In $3x + 7 = 32$, 3 is a/an _____.</p>
<p>In $3x + 7 = 32$, x is a/an _____.</p>	<p>In $3x + 7 = 32$, 32 is a/an _____.</p>
<p>In $3x + 7 = 32$, $3x$ is a/an _____.</p>	<p>In $3x + 7 = 32$, $3x + 7$ is a/an _____.</p>
<p>In $12ab - 6z = 99a + 4$, list all of the coefficients.</p>	<p>In $12ab - 6z = 99a + 4$, list all of the terms.</p>
<p>In $12ab - 6z = 99a + 4$, list all of the expressions.</p>	<p>In $12ab - 6z = 99a + 4$, list all of the variables.</p>

Equation Vocabulary Exit Card

Name _____ Date _____

<p>For the number sentence shown below, match the terms in the second column to the items in the first column.</p>		<p>Create your own number sentence, and write your own example of each term.</p>
<p>Number sentence: $6x - 3y = 18$</p>		<p>Number sentence:</p>
$6x - 3y$		coefficient
3		equation
$6x$		expression
$6x - 4 = 8$		term
y		variable
<p>What equation vocabulary would be used to name 18 in this number sentence?</p>		

Equation Vocabulary Flashcards

Cut out on the dotted line and fold on the solid line to create cards.

A number that is multiplied by a variable	coefficient
A term or a combination of terms and operators	expression
Either a single number, a variable, or numbers and/or variables multiplied together	term
A mathematical sentence stating that two expressions are equal	equation
A symbol for an unknown value	variable
A number on its own	constant
A symbol (+, ×, −, or ÷) representing a mathematical operation	operator