

Evaluating Expressions Worksheet 7th

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Part 1: Building a Foundation

What is an algebraic expression?

Hint: Think about what components make up an algebraic expression.

- A) A combination of numbers and operations only
- B) A combination of variables and operations only
- C) A combination of numbers, variables, and operations
- D) A combination of numbers and variables only

What is an algebraic expression?

Hint: Think about the components that make up an expression.

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- B) A combination of variables and operations only
- C) A combination of numbers, variables, and operations
- D) A combination of numbers and variables only

Which of the following are components of an algebraic expression?

Hint: Consider the different parts that make up an expression.

- A) Variables
- B) Coefficients
- C) Exponents

D) Constants

Which of the following are components of an algebraic expression?

Hint: Consider the elements that make up an expression.

- A) Variables
- B) Coefficients
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Explain the purpose of using variables in algebraic expressions.

Hint: Think about how variables help represent unknown values.

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List the steps in the order of operations (PEMDAS/BODMAS).

Hint: Remember the acronym that helps you recall the order.

1. What is the first step?

2. What is the second step?

3. What is the third step?

4. What is the fourth step?

What is the coefficient in the expression $5x + 3$?

Hint: Identify the number that multiplies the variable.

- A) 5
- B) x
- C) 3
- D) 8

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Part 2: Comprehension and Application

Why is it important to follow the order of operations when evaluating expressions?

Hint: Consider the consequences of not following the order.

- A) To ensure the expression looks neat
- B) To obtain the correct result
- C) To make the expression longer
- D) To avoid using variables

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Which of the following expressions are simplified correctly?

Hint: Look for expressions that follow the rules of simplification.

- A) $3x + 2x = 5x$
- B) $4y - y = 3y$
- C) $2(a + b) = 2a + 2b$
- D) $6z + 3 = 9z$

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Describe how you would substitute a value into the expression $2x + 5$.

Hint: Think about the steps you would take to replace the variable.

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Hint: Think about replacing the variable with a number.

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If $x = 3$, what is the value of the expression $4x - 7$?

Hint: Substitute the value of x into the expression and calculate.

- A) 5
- B) 7
- C) 12
- D) 17

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Evaluate the expression $3a + 2b$ when $a = 2$ and $b = 4$.

Hint: Substitute the values of a and b into the expression.

- A) 10
- B) 14
- C) 16
- D) 18

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Part 3: Analysis, Evaluation, and Creation

Which of the following correctly shows the distributive property?

Hint: Recall the definition of the distributive property.

- A) $a(b + c) = ab + ac$
- B) $a(b + c) = a + b + c$
- C) $a(b + c) = ab + bc$
- D) $a(b + c) = ac + bc$

Which of the following correctly shows the distributive property?

Hint: Think about how multiplication distributes over addition.

- A) $a(b + c) = ab + ac$

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Identify the like terms in the expression $4x + 3y - 2x + 5$.

Hint: Look for terms that have the same variable part.

- A) $4x$ and $-2x$
- B) $3y$ and 5
- C) $4x$ and $3y$
- D) $-2x$ and 5

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Analyze the expression $2(x + 3) - 4x$ and explain the steps to simplify it.

Hint: Think about how to distribute and combine like terms.

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Hint: Consider distributing and combining like terms.

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If the expression $5x - 3 = 2x + 9$ is true, what is the value of x ?

Hint: Isolate x on one side of the equation.

- A) 3
- B) 4
- C) 5
- D) 6

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Consider the expression $2x + 3y = 12$. Which of the following pairs (x, y) satisfy the equation?

Hint: Substitute the pairs into the equation to check if they hold true.

- A) (3, 2)
- B) (2, 3)
- C) (4, 0)
- D) (0, 4)

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Create an algebraic expression that represents the total cost (C) of buying x apples at \$2 each and y bananas at \$1.50 each.

Hint: Think about how to express the total cost in terms of x and y .

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