

Pre Algebra Worksheet Answer Key PDF

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Part 1: Building a Foundation

What is the result of $7 + 5$?

undefined. 10

undefined. 11

undefined. 12 ✓

undefined. 13

The correct answer is 12.

Which of the following are prime numbers?

undefined. 2 ✓

undefined. 4

undefined. 5 ✓

undefined. 9

The prime numbers from the options are 2 and 5.

Explain the difference between a factor and a multiple.

A factor is a number that divides another number without a remainder, while a multiple is the result of multiplying a number by an integer.

List the first three multiples of 6.

1. First multiple of 6

6

2. Second multiple of 6

12

3. Third multiple of 6

18

The first three multiples of 6 are 6, 12, and 18.

What is the value of 3^2 ?

undefined. 6

undefined. 9 ✓

undefined. 12

undefined. 15

The correct answer is 9.

Part 2: Understanding and Interpretation

Which property of addition is demonstrated by the equation $4 + 5 = 5 + 4$?

undefined. Associative Property

undefined. Communtative Property ✓

undefined. Distributive Property

undefined. Identity Property

This demonstrates the Commutative Property.

Which of the following expressions are equivalent to $\frac{3}{4}$?

undefined. $\frac{6}{8}$ ✓

undefined. $\frac{9}{12}$ ✓

undefined. $\frac{12}{16}$ ✓

undefined. $\frac{15}{20}$

The equivalent expressions are $\frac{6}{8}$, $\frac{9}{12}$, and $\frac{12}{16}$.

Describe how to convert a fraction to a decimal.

To convert a fraction to a decimal, divide the numerator by the denominator.

Part 3: Application and Analysis

If a rectangle has a length of 8 units and a width of 3 units, what is its area?

undefined. 11 square units

undefined. 24 square units ✓

undefined. 26 square units

undefined. 30 square units

The area is 24 square units.

Which of the following are solutions to the equation $x + 3 = 7$?

undefined. 3

undefined. 4 ✓

undefined. 5

undefined. 6

The solution is 4.

Solve the equation $2x - 5 = 9$ and explain your steps.

The solution is $x = 7$, found by adding 5 to both sides and then dividing by 2.

Which of the following graphs represents a linear relationship?

undefined. A graph with a straight line ✓

undefined. A graph with a curved line

undefined. A graph with a zigzag line

undefined. A graph with a dotted line

The graph with a straight line represents a linear relationship.

Which of the following statements are true about the number line?

undefined. Negative numbers are to the left of zero. ✓

undefined. Positive numbers are to the right of zero. ✓

undefined. Zero is neither positive nor negative. ✓

undefined. The number line is finite.

The true statements are A, B, and C.

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

The simplified expression is $x + 12$.

Part 4: Evaluation and Creation

Which of the following statements best evaluates the expression $2(x - 3) + 4 = 10$?

undefined. The solution is $x = 4$.

undefined. The solution is $x = 5$. ✓

undefined. The solution is $x = 6$.

undefined. The solution is $x = 7$.

The solution is $x = 5$.

Which of the following are valid methods to solve the equation $x^2 = 16$?

undefined. Factoring ✓

undefined. Taking the square root ✓

undefined. Completing the square ✓

undefined. Graphing

The valid methods are factoring, taking the square root, and completing the square.

Create a real-world problem that can be solved using a linear equation, and provide the solution.

An example could be calculating the cost of items at a fixed price.

Propose two different methods to solve the equation $x + 5 = 12$ and explain each method briefly.

1. Method 1

Subtract 5 from both sides.

2. Method 2

Use a number line to visualize the solution.

One method is to subtract 5 from both sides, and another is to use a number line.