Math Vocabulary Worksheets Questions and Answers PDF

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Part 1: Building a Foundation

What is the term for a number that is divisible by 2 without a remainder?

Hint: Think about the characteristics of numbers.

- ◯ Odd Number
- ◯ Prime Number
- ◯ **Even Number ✓**
- ◯ Composite Number

> The correct answer is 'Even Number'.

Select all the properties that define a prime number.

Hint: Consider the definition of prime numbers.

- ☐ **Greater than 1 ✓**
- ☐ **Divisible only by 1 and itself ✓**
- ☐ Has more than two divisors
- ☐ Can be even

> The correct answers are 'Greater than 1' and 'Divisible only by 1 and itself'.

Explain the difference between a numerator and a denominator in a fraction.

Hint: Think about the parts of a fraction.

The numerator is the top part of a fraction, representing how many parts are being considered, while the denominator is the bottom part, indicating the total number of equal parts.

List two examples of quadrilaterals.

Hint: Think about shapes with four sides.

1. Example 1

Square

2. Example 2

Rectangle

Examples of quadrilaterals include squares and rectangles.

Which of the following is an improper fraction?

Hint: Consider the relationship between the numerator and denominator.

- ◯ 3/4
- ◯ **5/3** ✓
- ◯ 1/2
- ◯ 2/5

The correct answer is '5/3'.

Part 2: Comprehension and Application

Which shape has all points equidistant from its center?

Hint: Think about the definition of a circle.

- ◯ Square
- ◯ Triangle
- ◯ **Circle ✓**
- ◯ Rectangle

> The correct answer is 'Circle'.

Identify the correct statements about polygons.

Hint: Consider the characteristics of polygons.

- ☐ **They have straight sides. ✓**
- ☐ They are always three-sided.
- ☐ They can be open figures.
- ☐ **They are closed figures. ✓**

> The correct answers are 'They have straight sides.' and 'They are closed figures.'

Describe how the mean of a data set is calculated.

Hint: Think about the steps involved in finding the mean.

> **To calculate the mean, sum all the values in the data set and then divide by the number of values.**

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

Hint: Use the formula for the perimeter of a rectangle.

- ◯ 11 units

- ◯ **22 units ✓**
- ◯ 24 units
- ◯ 16 units

> The correct answer is '22 units'.

A mixed number is composed of which of the following?

Hint: Think about the components of a mixed number.

- ☐ **An integer ✓**
- ☐ A decimal
- ☐ **A proper fraction ✓**
- ☐ An improper fraction

> The correct answers are 'An integer' and 'A proper fraction'.

Convert the improper fraction 9/4 into a mixed number.

Hint: Think about how many whole numbers fit into the fraction.

> **The mixed number is 2 1/4.**

Part 3: Analysis, Evaluation, and Creation

Which property distinguishes a composite number from a prime number?

Hint: Consider the definitions of both types of numbers.

- ◯ It is odd.
- ◯ **It has more than two divisors. ✓**
- ◯ It is even.
- ◯ It is greater than 1.

The correct answer is 'It has more than two divisors.'

Analyze the following expressions and identify which are equivalent to 3x + 6.

Hint: Consider the properties of algebraic expressions.

- [ ] **3(x + 2) ✓**
- [ ] **6 + 3x ✓**
- [ ] x + 6
- [ ] 3x + 3 + 3

The correct answers are '3(x + 2)' and '6 + 3x'.

Explain how you would determine the area of a triangle given its base and height.

Hint: Think about the formula for the area of a triangle.

The area of a triangle is calculated using the formula: Area = 1/2 * base * height.

Which of the following scenarios best demonstrates the use of a variable in an equation?

Hint: Consider how variables are used in mathematical expressions.

- ○ Calculating the total cost of items in a shopping cart.
- ○ **Solving for x in the equation 2x + 3 = 11. ✓**
- ○ Counting the number of apples in a basket.
- ○ Measuring the length of a table.

The correct answer is 'Solving for x in the equation 2x + 3 = 11.'

Evaluate the following statements and select those that correctly describe the properties of a circle.

Hint: Think about the characteristics of circles.

- [ ] **It has a diameter twice the radius. ✓**

- [x] **Its circumference is π times the diameter. ✓**
- [ ] It has four equal sides.
- [x] **All points on the circle are equidistant from the center. ✓**

> The correct answers are 'It has a diameter twice the radius.', 'Its circumference is π times the diameter.', and 'All points on the circle are equidistant from the center.'

Create a real-world problem that involves finding the volume of a rectangular prism, and solve it.

Hint: Think about the formula for volume.

> **A possible problem could be: 'A box has a length of 5 units, a width of 3 units, and a height of 4 units. The volume is calculated as 5 * 3 * 4 = 60 cubic units.'**

Propose two different methods to solve the equation 4x - 7 = 9 and explain your reasoning.

Hint: Consider different algebraic techniques.

1. Method 1

> Add 7 to both sides and then divide by 4.

2. Method 2

> Use substitution or graphically represent the equation.

> One method is to isolate x by adding 7 to both sides and then dividing by 4. Another method is to use substitution or graphically represent the equation.