Geometry Vocabulary Worksheet

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Part 1: Building a Foundation

What is a line segment?

Hint: Think about the definition of a line segment in geometry.

- ◯ A) A line that extends infinitely in both directions
- ◯ B) A part of a line with two endpoints
- ◯ C) A line that extends infinitely in one direction
- ◯ D) A flat surface that extends infinitely in all directions

Which of the following are types of angles? (Select all that apply)

Hint: Consider the different classifications of angles.

- ☐ A) Acute
- ☐ B) Right
- ☐ C) Straight
- ☐ D) Parallel

Describe the difference between a ray and a line.

Hint: Think about the endpoints and direction of each.

List the names of three types of triangles based on their sides.

Hint: Consider the classifications based on side lengths.

1. Type 1

2. Type 2

3. Type 3

What is the term for a closed figure with many sides?

Hint: Think about the definition of polygons.

- ◯ A) Circle
- ◯ B) Polygon
- ◯ C) Angle
- ◯ D) Line

Part 2: comprehension and Application

Which shape has four equal sides and four right angles?

Hint: Consider the properties of quadrilaterals.

- ◯ A) Rectangle
- ◯ B) Rhombus
- ◯ C) Square
- ◯ D) Trapezoid

Which statements are true about a circle? (Select all that apply)

Hint: Think about the properties of circles.

- ☐ A) The diameter is twice the radius.
- ☐ B) All points on the circle are equidistant from the center.
- ☐ C) A circle has edges and vertices.
- ☐ D) The circumference is the distance around the circle.

Explain how a parallelogram differs from a rectangle.

Hint: Consider the properties of both shapes.

If a triangle has angles measuring 60°, 60°, and 60°, what type of triangle is it?

Hint: Think about the properties of triangle angles.

- ◯ A) Scalene
- ◯ B) Isosceles
- ◯ C) Equilateral
- ◯ D) Right

Which of the following could be the characteristics of a trapezoid? (Select all that apply)

Hint: Consider the properties of trapezoids.

- ☐ A) Two parallel sides
- ☐ B) Four equal sides
- ☐ C) One pair of parallel sides
- ☐ D) Opposite sides are equal

A cylinder has a height of 10 cm and a radius of 3 cm. Calculate the volume of the cylinder. (Use $\pi \approx 3.14$)

Hint: Use the formula for the volume of a cylinder: $V = \pi r^2 h$.

Part 3: Analysis, Evaluation, and Creation

Which of the following statements best describes the relationship between a square and a rectangle?

Hint: Think about the definitions of both shapes.

- ◯ A) All squares are rectangles, but not all rectangles are squares.
- ◯ B) All rectangles are squares, but not all squares are rectangles.
- ◯ C) Squares and rectangles are completely different shapes.
- ◯ D) Squares and rectangles are the same shapes.

Analyze the properties of a rhombus. Which statements are true? (Select all that apply)

Hint: Consider the characteristics of a rhombus.

- ☐ A) All sides are equal.
- ☐ B) Opposite angles are equal.
- ☐ C) It has four right angles.
- ☐ D) The diagonals bisect each other at right angles.

Compare and contrast a cone and a pyramid in terms of their geometric properties.

Hint: Think about the shapes and their characteristics.

Which geometric shape would be most efficient for creating a container with maximum volume using the least amount of material?

Hint: Consider the properties of different shapes.

- ◯ A) Cube
- ◯ B) Sphere
- ◯ C) Cylinder
- ◯ D) Cone

Evaluate the following statements about polygons. Which are correct? (Select all that apply)

Hint: Consider the definitions and properties of polygons.

- [ ] A) A regular polygon has all sides and angles equal.
- [ ] B) A pentagon has six sides.
- [ ] C) An octagon has eight sides.
- [ ] D) A hexagon has five sides.

Design a simple geometric park layout using at least three different shapes. Describe the shapes used and their arrangement.

Hint: Think about how different shapes can be arranged in a park.