Grade 4 Math Worksheet: Understanding Shapes (Difficulty Level: Advanced)

Name: _____
Date: _____

Section 1: Shape Identification

1.   **Identify each shape as "Polygon" or "Non-Polygon" (for 2D shapes) or "Prism" or "Non-Prism" (for 3D shapes):**

Shape	Classification
Hexagon	
Sphere	
Rectangular Prism	
Circle	
Cylinder	
Cube	

Section 2: Analyzing Shape Properties

1.   **Complete the Table:**

Shape	Faces	Edges	Vertices
Square Pyramid			
Cylinder			
Sphere			
Cube			

2. **Answer the Following:**

- ○ Which shape has the most faces? _____
- ○ Which shape has only one face? _____
- ○ Why do you think cubes stack better than cones?

Section 3: Shape Comparisons

1. **Complete the Sentences:**
   - ○ A **sphere** has _____ surface and no _____.
   - ○ A **cube** has _____ equal faces, all of which are _____.
2. **Similarities and Differences:**
   - ○ **Cone and Pyramid:**
     - ■ Similarity: _____
     - ■ Difference: _____

Section 4: Real-Life Connections

1. **Real-World Matching:**

Shape	Real-Life Example
Cube	a) Dice
Cylinder	b) Soda can
Sphere	c) Basketball
Pyramid	d) Egyptian monument

2.
   Practical Uses:
   - ○ Why are **cylinders** often used for cans?
   - ○ What are some advantages of the **pyramid** shape in construction?

Section 5: Drawing Shapes

1. **Draw the Following:**

- Draw a **pyramid** with a square base and label its vertices and edges.
- Draw a **cylinder** and show its two circular faces.

--BE THE CHAMPION!--