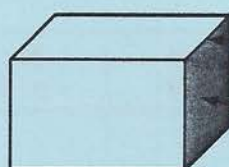


# Solids

Solid figures have three dimensions: length, width, and height. Many solids have edges, faces, and vertices.



Rectangular prism

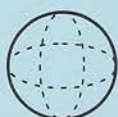
**Edge:** the line segment where 2 faces meet

**Face:** the flat surface of solid figures

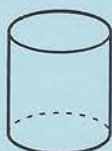
**Vertex:** the corner where 3 or more edges meet

Spheres, cylinders, and cones have curved surfaces. Other solids have all flat surfaces.

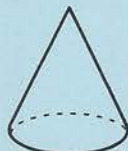
## Curved Surfaces



Sphere

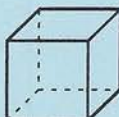


Cylinder



Cone

## Flat Surfaces



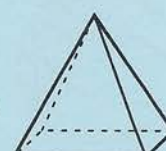
Cube



Triangular prism



Square pyramid



Rectangular pyramid

Complete the table.

	Solid Figure	Number of Faces	Number of Edges	Number of Vertices	Shape(s) of Faces
1.	Rectangular prism				
2.	Cube				
3.	Triangular prism				
4.	Square pyramid				

5. **Reasoning** Compare rectangular pyramids and rectangular prisms. How are they alike?

---



---

Name \_\_\_\_\_

Practice

**15-1**

# Solids

Complete the table.

Solid Figure	Number of Faces	Number of Edges	Number of Vertices
1. Square Pyramid			
2. Cube			
3. Triangular Prism			

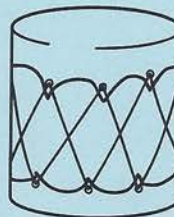
Identify the solid figure that best describes each object.

4.



\_\_\_\_\_

5.



\_\_\_\_\_

6.



\_\_\_\_\_

7. How many total faces does a rectangular prism have? \_\_\_\_\_

8. Which solid does the figure represent?



**A** Rectangular pyramid

**C** Rectangular prism

**B** Cylinder

**D** Square pyramid

9. **Writing to Explain** Explain the difference between a plane figure and a solid figure.

\_\_\_\_\_

\_\_\_\_\_

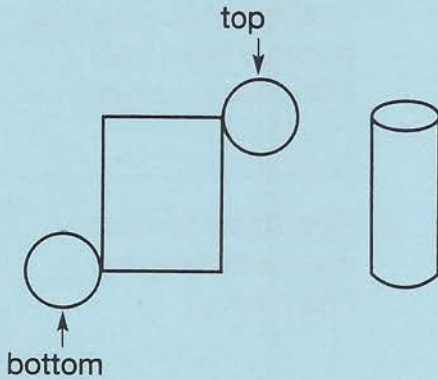
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# Views of Solids: Nets

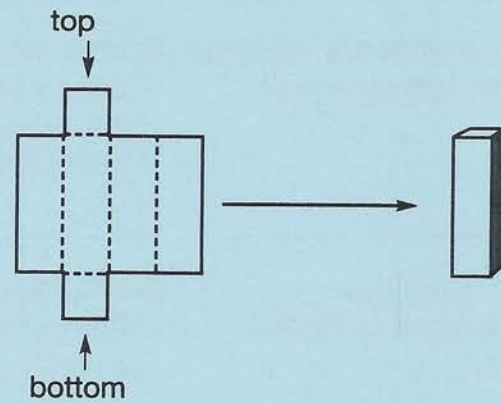
You can make models of solid figures by using patterns called **nets**.

Here is a net for a cylinder.



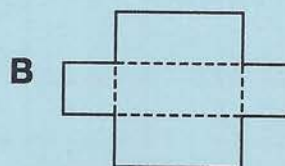
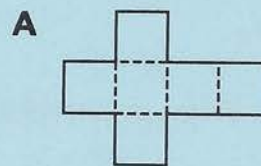
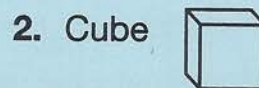
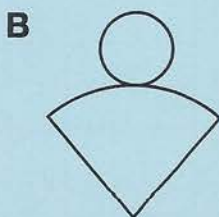
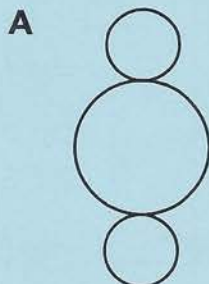
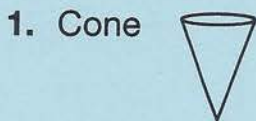
You can see the circles for the top and the bottom and the rectangle that makes up the side.

Here is a net for a rectangular prism. The dashed line segments show you where to fold. The solid line segments show you where to cut.



You can see 4 rectangles for the sides of the prism and the 2 squares for the top and bottom.

Circle the correct letter of the net for each solid.



Name \_\_\_\_\_

Practice

**15-2**

## Views of Solids: Nets

Solve.

1. What are the shapes of the faces of a triangular prism?  
\_\_\_\_\_
2. What shape does a triangular prism have that a rectangular prism does not have?  
\_\_\_\_\_
3. How many more vertices does a square pyramid have than a triangular pyramid?  
\_\_\_\_\_
4. What shapes are the sides of a square pyramid?  
\_\_\_\_\_
5. How many more vertices does a triangular prism have than a triangular pyramid?  
\_\_\_\_\_
6. How many vertices does a rectangular prism have?  
\_\_\_\_\_
7. What figure has 6 rectangles as faces?  
\_\_\_\_\_
8. What figure has 2 triangular faces and 3 rectangular faces?  
\_\_\_\_\_
9. How many more vertices does a rectangular prism have than a rectangular pyramid?  
\_\_\_\_\_
10. Julie made a coin bank in the shape of a rectangular prism. She wants to paint each face a different color. How many colors will she need?  
\_\_\_\_\_
11. Which solid figure has the most vertices?  
A triangular prism                      C rectangular pyramid  
B rectangular prism                      D triangular pyramid
12. **Writing to Explain** What is one difference between a prism and a pyramid?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Practice 15-2