

Name \_\_\_\_\_ Date \_\_\_\_\_

# Three-Dimensional Figures (pages 412–414)

A **three-dimensional** figure encloses a part of space. The flat surfaces are called **faces**. The segments formed by the intersecting faces are the **edges**. The edges intersect at the **vertices**.

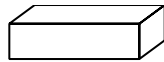
<p><b>Naming Three-Dimensional Figures</b></p>	<ul style="list-style-type: none"> <li>• <b>prism:</b> two parallel and congruent faces, called <b>bases</b></li> <li>• <b>pyramid:</b> triangular faces; one base</li> </ul> <p>Prisms and pyramids are named by the polygon(s) at their base(s).</p> <ul style="list-style-type: none"> <li>• <b>cone:</b> curved surface; one circular base</li> <li>• <b>cylinder:</b> curved surface; two circular bases</li> <li>• <b>sphere:</b> all the points are the same distance from the center</li> </ul>
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## EXAMPLES

**A** Name this figure.

*The faces are rectangular, so the figure is a prism.*

*The bases are rectangles, so it is a rectangular prism.*



**B** Name this figure.

*The surface is curved and there are two circular bases.*

*The figure is a cylinder.*



## Try These Together

1. Is a square a two-dimensional or a three-dimensional figure?

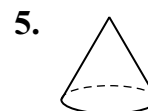
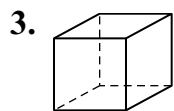
*HINT: Does a square have the three dimensions of length, width, and height?*

2. How many faces, edges, and vertices are there in the figure of Example A?

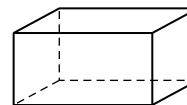
*HINT: Think of a closed box shape.*

## PRACTICE

**Name each figure.**



6. How many edges does this rectangular prism have?



7. **Gift Wrapping** Juanita bought her mother a candle in the shape of a square pyramid for her birthday. How many faces does the candle have for Juanita to cover with wrapping paper?



8. **Standardized Test Practice** How many faces does a triangular pyramid have?

**A** 4

**B** 3

**C** 5

**D** 2

**Answers:** 1. two-dimensional 2. 6; 12; 8 3. cube (or square prism) 4. sphere 5. cone 6. 12 7. 5 8. A