

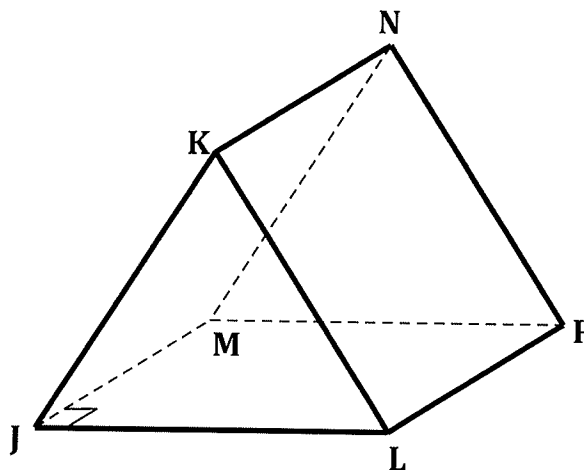
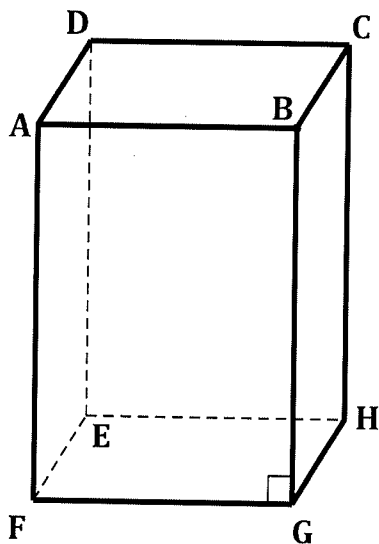
VOLUME OF PRISMS & CYLINDERS NOTES
GEOMETRY

NAME: _____
 DATE: _____ PERIOD: _____

Learning Targets:

- ✓ Find the volume of a prism
- ✓ Find the volume of a cylinder

- * A **prism** is a polyhedron with two _____, called **bases**, that lie in _____ planes.
- * The other faces, called **lateral faces**, are _____ formed by connecting the corresponding _____ of the bases.
- * The _____ connecting those vertices are called **lateral edges**.
- * The **altitude** (or **height**) of a prism is the _____ distance between its bases.
- * In a **right prism**, each _____ edge is perpendicular to both _____.
- * Prisms that have lateral edges that are _____ perpendicular to the bases are called **oblique prisms**. We will only be studying right prisms.

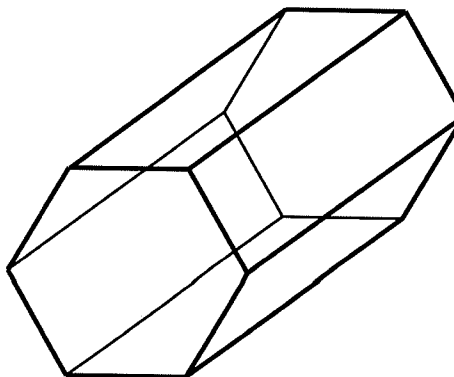
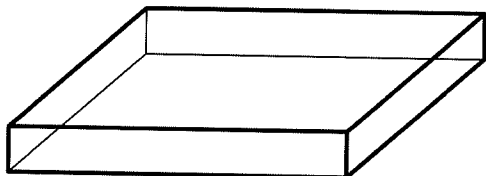


- * Prisms are classified by the _____ of their _____.

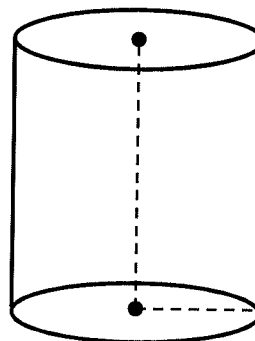
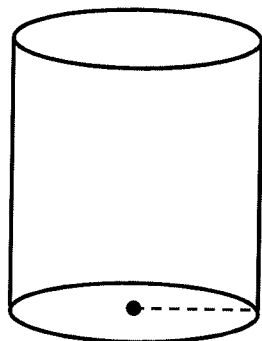
For #s 1-2, name each right prism. Then, label the base and height.

1) Name: _____

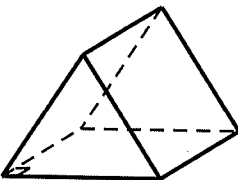
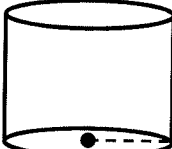
2) Name: _____



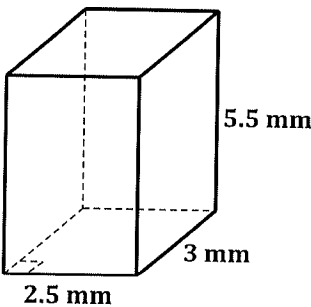
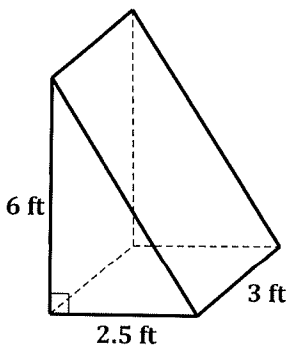
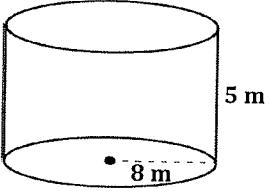
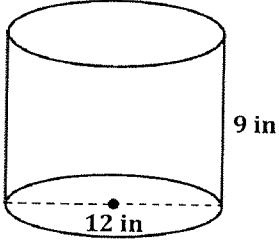
- * A **cylinder** is a solid with congruent _____ bases that lie in _____ planes.
- * The **altitude** (or **height**) of a cylinder is the _____ distance between its bases.
- * The **radius** of the _____ is also called the radius of the _____.



- * The **volume of a solid** is the number of _____ units contained in its _____.

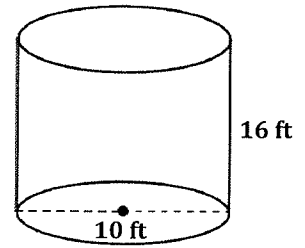
Volume	
Prism: $V = Bh$ 	Cylinder: $V = Bh = \pi r^2 h$ 
where, $B =$ _____ $h =$ _____ $r =$ _____	

For #s 3–6, find the volume of the solid.

<p>3) Round to the nearest <i>hundredth</i>.</p> 	<p>4) Round to the nearest <i>tenth</i>.</p> 
<p>5) Leave your answer in terms of π.</p> 	<p>6) Leave your answer in terms of π.</p> 



Find the volume of the cylinder. Leave your answer in terms of π .



- 8) What is the radius of a cylinder with a height of 5 inches and a volume of 62.8 in^3 ? Round your answer to the nearest *inch*.
- 9) What is the length of a rectangular prism with a volume of 576 cm^3 , a height of 6 cm, and a width of 8 cm?
- 10) Calculating the volume of the air in your home can help you determine how much heating and cooling your home will cost. Farmer Joe wants to find the air volume of his barn. The height of the barn (at the highest point) is 35 feet. Help Joe find the volume to the nearest cubic foot.

