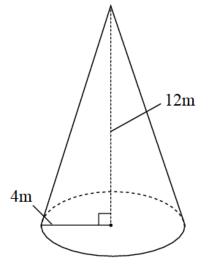
Part A: Volume of Cones, Cylinders, and Spheres [8.G.9]

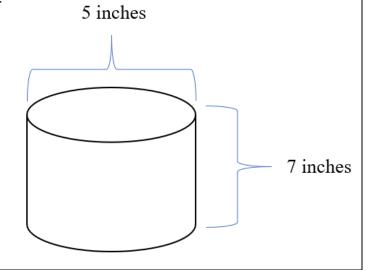
A cone has height 12 meters and radius 4 meters.

**Determine** the volume of the cone, in cubic meters, and round to the nearest hundredth.



A cylinder measures 7 inches tall with a diameter of 5 inches.

**Determine** the volume of the cylinder, in cubic inches, and round to the nearest tenth.



A sphere has radius 12 mm. 3.

**Determine** the volume of the sphere, in cubic mm, and round to the nearest hundredth.

4.	Carla is designing several containers for a science project. The containers must all have the same volume. <b>Select</b> all the containers which have the same volume.  A) A sphere with radius 6 inches.		
	B) A cylinder with radius 3 inches and height 32 inches.		
	<ul><li>C) A cylinder with radius 6 inches and height 16 inches.</li><li>D) A cone with radius 6 inches and height 8 inches.</li></ul>		
5.	Carla is working on the second part of her science project. She needs to design containers that meet the following specifications. <b>Design</b> an appropriate container to meet each specification. <b>Prove</b> the dimensions meet the specifications.		
	Container A	Container B	Container C
	Sphere with volume between	Cone with volume between 200	Cylinder with volume between
	100 and 150 cubic inches.	and 300 cubic meters.	350 and 380 cubic centimeters.