Vocabulary Check

1. CCSS **Be Precise** Define *cylinder*. What are the symbols used to find the volume of a cylinder? (Lesson 1)

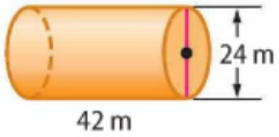
   A cylinder is a three-dimensional figure with two parallel congruent circular bases. Sample answer: The volume V of a cylinder with a radius r is the area of the base B times the height h, where $B = \pi r^2$.

Fill in the blank.

2. The volume of a cone is **$\frac{1}{3}$** the volume of a cylinder with the same base and height. (Lesson 2)

Skills Check and Problem Solving

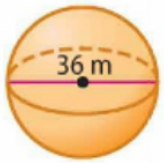
3. What is the volume of the cylinder shown at the right? Round to the nearest tenth. (Lesson 1) **19,000.4 m^3**



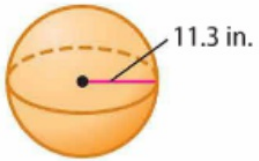
4. Find the height of a cone with a volume of 464.603 cubic feet and a diameter of 8 feet. (Lesson 2) **27.7 ft**

Find the volume of each sphere. Round to the nearest tenth. (Lesson 3)

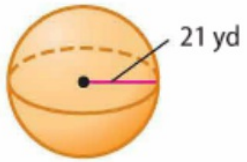
5. **24,429.0 m^3**



6. **6044.0 in^3**



7. **38,792.4 yd^3**



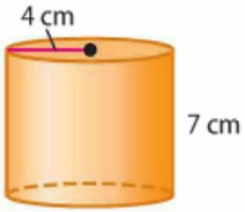
8. CCSS **Reason Inductively** Refer to the cylinders shown. If a cone has a base and height congruent to Cylinder 1, which statement is true? (Lesson 2) **IV**

I The volume of the cone is equal to the volume of Cylinder 1.

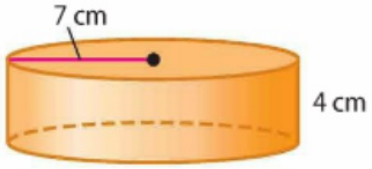
II The volume of the cone is equal to the volume of Cylinder 2.

III The cone has a greater volume than Cylinder 1.

IV The cone has one third the volume of Cylinder 1.



Cylinder 1



Cylinder 2