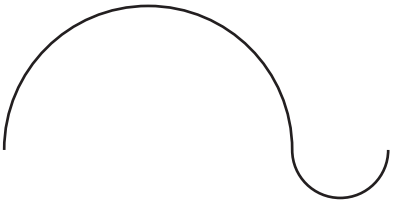
# Lesson 1 Practice Problems

1. Sketch the solid of rotation formed by rotating the given two-dimensional figure using the horizontal line shown as an axis of rotation.

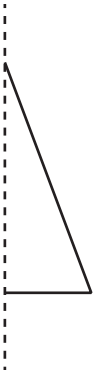


2. Draw a two-dimensional figure that could be rotated using a vertical axis of rotation to give the barrel shown.

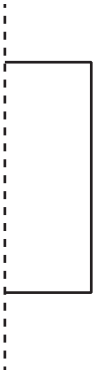
3. Match the two-dimensional figure and axis of rotation with the solid of rotation that can be formed by rotating the figure using that axis.

1. a cylinder
2. a sphere
3. a cone

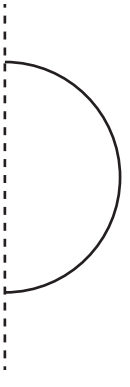
A.



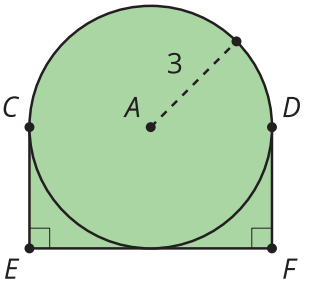
B.



C.

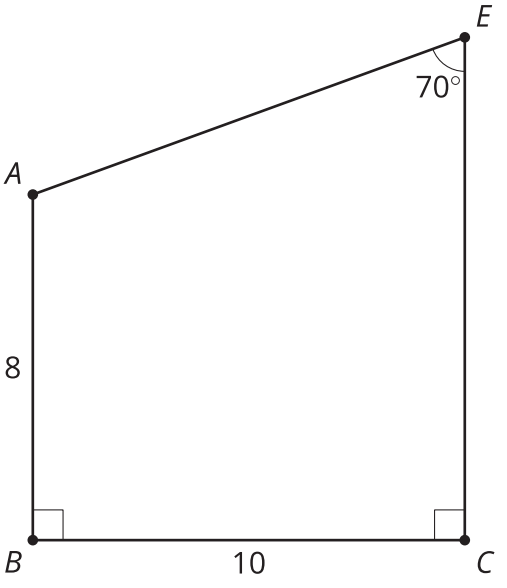


4. Find the area of the shaded region.




(From Unit 4, Lesson 11.)

5. *Technology required.* Find the area of the figure.



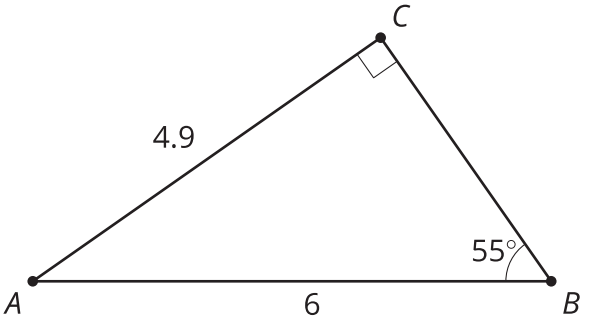

(From Unit 4, Lesson 11.)

6. *Technology required.* This stop sign is a regular octagon. It has side lengths of 12 inches. What is the area? What is the perimeter?


(From Unit 4, Lesson 10.)

7. Right triangle $ABC$ is shown.

Select **all** expressions which are equal to the length of side $BC$.




A. $\sqrt{4.9^2 + 6^2}$

B. $\sqrt{6^2 - 4.9^2}$

C. $4.9 \sin(55)$

D. $\frac{4.9}{\sin(55)}$

E. $4.9 \tan(55)$

F. $\frac{4.9}{\tan(55)}$

G. $6 \cos(55)$

H. $\frac{6}{\cos(55)}$

(From Unit 4, Lesson 6.)