## **Lesson 3 Assignment Surface Area**

## **Multiple Choice**

Identify the choice that best completes the statement or answers the question.

- 1. What is the surface area of a cube that measures 16" on each side?
  - a.  $2048 \text{ in}^2$

c.  $1024 \text{ in}^2$ 

b. 1536 in<sup>2</sup>

d.  $256 \text{ in}^2$ 

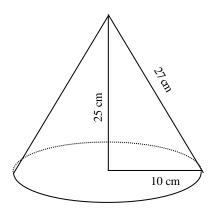
- 2. An aluminum pop can measures 11 cm high and has a radius of 3 cm. What is the surface area of the exposed can, to 2 decimal places?
  - a. 28.27 cm

c. 263.89 cm

b. 367.57 cm

d. 226.19 cm

3. Find the surface area of this cone. Include the surface area of the base of the cone. Round to 1 decimal place.



a. 21519.9 cm<sup>2</sup>

b. 879.6 cm<sup>2</sup>

c.  $1162.4 \text{ cm}^2$ 

d. 1099.6 cm<sup>2</sup>

4. What is the surface area of a box with no lid that is 75 cm long, 0.4 m wide, and 200 mm high?

a.  $7600 \text{ cm}^2$ 

c.  $30\ 220\ cm^2$ 

b. 10 600 cm<sup>2</sup>

d.  $5700 \text{ cm}^2$ 

5. Two cylinders of radius 7 cm are placed together end to end. If the first cylinder was 13 cm long and the second was 8 cm long, what is the surface area of this new cylinder?

a. 1477.8 cm<sup>2</sup>

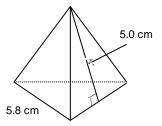
c. 1231.5 cm<sup>2</sup>

b. 1539.4 cm<sup>2</sup>

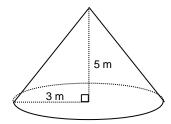
d.  $985.2 \text{ cm}^2$ 

## **Short Answer**

6. Determine the surface area of this regular tetrahedron to the nearest square centimetre.



7. Determine the surface area of this right cone to the nearest square metre.



- 8. A right cone has a height of 15 in. and a base diameter of 8 in. Determine the lateral area of the cone to the nearest square inch.
- 9. The radius of a volleyball is approximately 11 cm. Determine the surface area of a volleyball to the nearest square centimetre.
- 10. A right cone has a slant height of 14 in. and a base diameter of 10 in. Determine the surface area of the cone to the nearest square inch.
- 11. Sandy is painting the living room in her house. The room measures 18 feet long by 11 feet wide by 8 feet high. She will only paint the walls and not the floor or ceiling. What is the total area Sandy will paint?
- 12. A hemisphere has radius 7 ft. Determine the surface area of the hemisphere to the nearest square foot.