Lesson 3 Assignment Surface Area

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

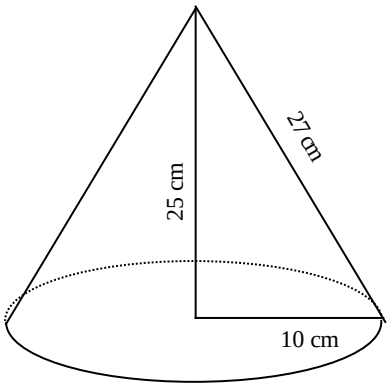
____ 1. What is the surface area of a cube that measures 16" on each side?

a. 2048 in^2
b. 1536 in^2
c. 1024 in^2
d. 256 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
b. 367.57 cm
c. 263.89 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^2
b. 879.6 cm^2
c. 1162.4 cm^2
d. 1099.6 cm^2

____ 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?

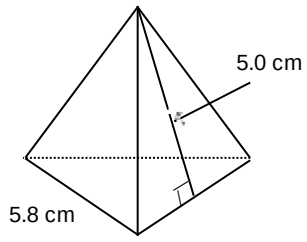
a. 7600 cm^2
b. 10 600 cm^2
c. 30 220 cm^2
d. 5700 cm^2

____ 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?

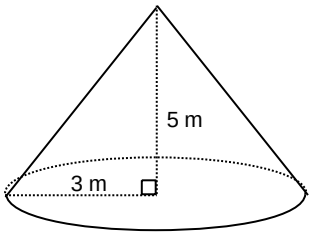
a. 1477.8 cm^2
b. 1539.4 cm^2
c. 1231.5 cm^2
d. 985.2 cm^2

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.

Lesson 3 Assignment Surface Area
Answer Section

MULTIPLE CHOICE

1. ANS: B

2. ANS: C
3. ANS: C
4. ANS: A
5. ANS: C

SHORT ANSWER

6. ANS:
   58 cm^2

7. ANS:
   83 m^2

8. ANS:
   195 square inches

9. ANS:
   1521 cm^2

10. ANS:
    298 square inches

11. ANS:
    Sandy will need to paint only the walls.

    Calculate the surface area of the walls.
    There are two of the longer walls.
    $A_1 = 2(l \times h)$

    $A_1 = 2(18 \times 8)$

    $A_1 = 288 \text{ ft}^2$

    There are two of the shorter walls.
    $A_2 = 2(l \times h)$

    $A_2 = 2(11 \times 8)$

    $A_2 = 176 \text{ ft}^2$

    Add to find the total area to be painted.

$A_{total} = A_1 + A_2$

$A_{total} = 288 + 176$

$A_{total} = 464 \text{ ft}^2$

Sandy will paint an area of 464 ft^2 of paint.

12. ANS:
462 square feet