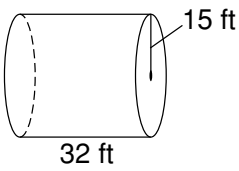
LESSON 9-6

Practice B

Surface Area of Prisms and Cylinders

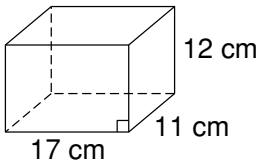
Find the surface area of each figure to the nearest tenth. Use 3.14 for π.

1.



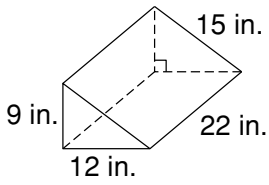
4427.4 ft^2

2.



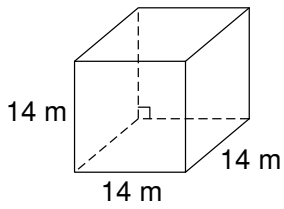
1046 cm^2

3.



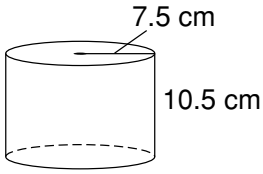
900 in^2

4.



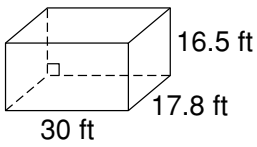
1176 m^2

5.



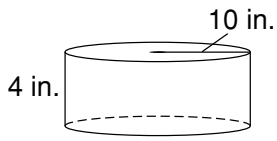
847.8 cm^2

6.



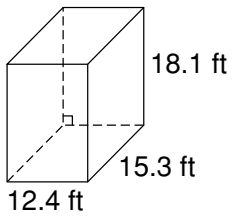
2645.4 ft^2

7.



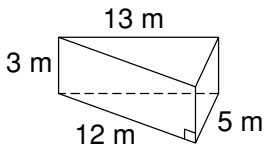
879.2 in^2

8.



1382.2 ft^2

9.



150 m^2

10. Find the surface area to the nearest tenth of a rectangular prism with height 15 m and sides 14 m and 13 m.

1174 m^2

11. Find the surface area to the nearest tenth of a cylinder 61.7 ft tall that has a diameter of 38 ft.

9629.1 ft^2

12. Henry wants to paint the ceiling and walls of his living room. One gallon of paint covers 450 ft^2. The room is 24 ft by 18 ft, and the walls are 9 ft high. How many full gallons of paint will Henry need to paint his living room?

3 gal

13. A rectangular prism is 18 in. by 16 in. by 10 in. Explain the effect, if any, tripling all the dimensions will have on the surface area of the figure. **Possible answer:**

By tripling the dimensions, the surface area becomes 9 times larger, from 1256 in^2 to 11,304 in^2.

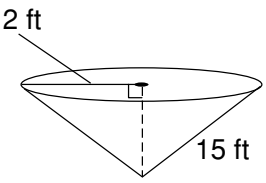
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LESSON 9-6

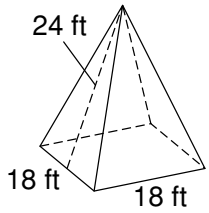
Practice B

Surface Area of Pyramids and Cones

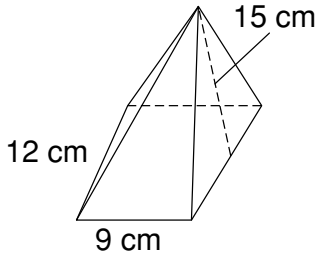
Find the surface area of each figure to the nearest tenth. Use 3.14 for π.

1. 

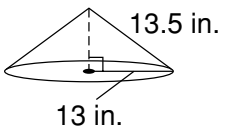
1017.4 ft^2

2. 

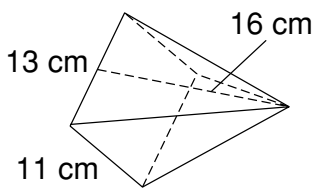
1188 ft^2

3. 

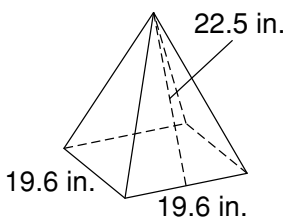
423 cm^2

4. 

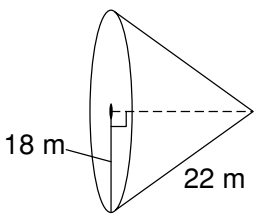
1081.7 in^2

5. 

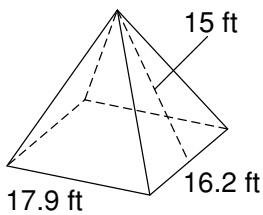
527 cm^2

6. 

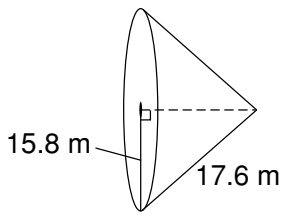
1266.2 in^2

7. 

2260.8 m^2

8. 

801.5 ft^2

9. 

1657.0 m^2

10. Find the surface area of a regular square pyramid with a slant height of 17 m and a base perimeter of 44 m.

495 m^2

11. Find the length of the slant height of a square pyramid if one side of the base is 15 ft and the surface area is 765 ft^2.

18 ft

12. Find the length of the slant height of a cone with a radius of 15 cm and a surface area of 1884 cm^2.

25 cm

13. A cone has a diameter of 12 ft and a slant height of 20 ft. Explain whether tripling both dimensions would triple the surface area. **Possible answer:**

The surface area of the first cone is 489.84 ft^2. The surface area of the cone with the new dimensions is 4408.56 ft^2. It increases the surface area by a factor of 9.

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