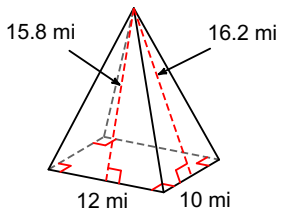
8.1 ~ Three-Dimensional Figures

Past due on_____ Period____

Identify the solid shown as a prism, pyramid, cylinder, cone, or sphere and name it accordingly. Then find the surface area of each figure. Round your answers to the nearest hundredth, if necessary.

1)



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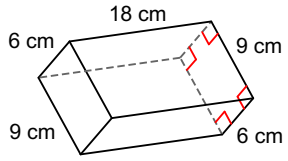

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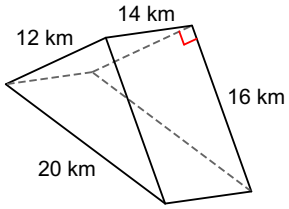

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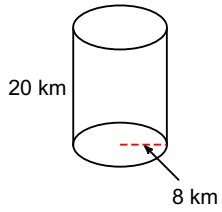

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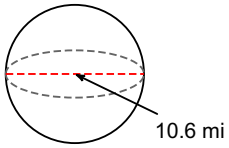

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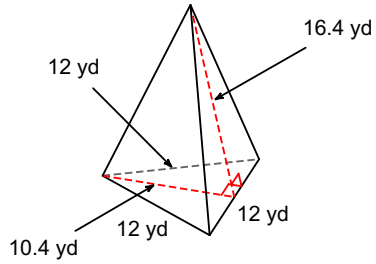

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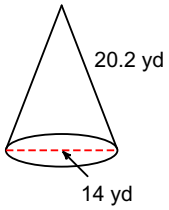
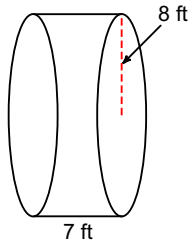
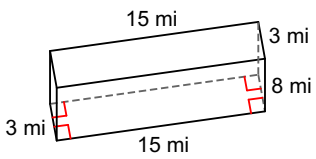


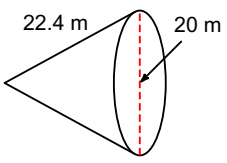
8)



9)



10)



11) The height of a right rectangular prism is twice the width; the length is three times the width. The surface area is 88 square yards. Let x represent the width. Set up and solve an equation to find the value of x (that makes sense). What is the length, width, and height of the prism?

12) The surface area of a cylinder is 44π square feet. The radius is $(x - 2)$ feet and the height is $(x + 5)$ feet. Set up and solve an equation to find the value of x (that makes sense). Then find the radius and height of the cylinder.

13) The slant height of a right cone is twice the radius of the cone. The surface area is 75π square inches. Let x represent the radius. Set up and solve an equation to find the value of x (that makes sense). Then find the slant height and the radius of the cone.

14) The slant height of a square pyramid is 6 more than the length of a side of the base. The surface area of the pyramid is 231 square centimeters. Let x represent the length of a side of the square base. Set up and solve an equation to find the value of x (that makes sense). Then find the slant height and the length of a side of the base of the pyramid.