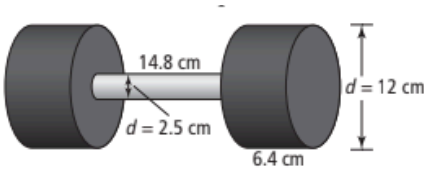
Lesson 2.2 Name: _____

Surface Area

Show You Know

Ex. 1	Ex. 2	Ex. 3
Sketch a right cone with diameter 16 cm and slant height 12 cm. What is its surface area?	Sketch a right rectangular pyramid with a square base measuring 10 cm on each side. The slant height of each face is 8.5 cm. What is the surface area of the pyramid?	Find the surface area of a basketball with diameter 23.85 cm. Express your answer to the nearest hundredth of a square centimeter.
Ex. 4	**Ex. 5**	
To the nearest millimeter, calculate the radius of a sphere with a surface area of 1 m^2.	Calculate the surface area of the following dumbell, to the nearest tenth of a square centimeter. 	

Practice

1. A jewelry box has a surface area of 148 $in.^2$. The base of the box is 6 in. by 4 in. Sketch a diagram to help determine the height of the box.

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Surface Area

2. A skylight has the shape of a right pyramid. The square base measures 1.2 m by 1.2 m and the height is 1.6 m.

    a. Determine the slant height of each face of the skylight.

    b. Determine the surface area of the pyramid that represents the skylight.

    c. How much glass is needed for the skylight? (HINT: There is no glass in the base of the pyramid.)

3. A farmer is filling a bin with grade. The grain forms a cone near the top of the bn.

    a. The grain cone has a height of 5.2 m and circumference of 32 m. Determine the slant height of the grain, to the nearest tenth of a meter.

    b. The farmer plans to treat the outside surface area of the grain pile to reduce rot. Determine the area to be treated to the nearest square meter.