

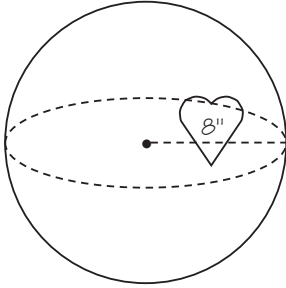
5.13.6 WS
Surface Area and Volume of Spheres

$$S = 4\pi r^2$$

$$V = \frac{4}{3}\pi r^3$$

Find the surface area and volume of the spheres. Leave all answers in terms of π .

1.



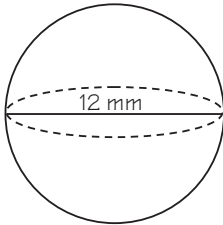
Surface Area: $S = 4 \cdot \pi \cdot \underline{\hspace{2cm}}^2$

$$= 4 \cdot \underline{\hspace{2cm}} \pi = \underline{\hspace{2cm}} \text{ in}^2$$

Volume: $V = \frac{4}{3} \cdot \pi \cdot \underline{\hspace{2cm}}^3$

$$= \frac{4}{3} \cdot \underline{\hspace{2cm}} \pi = \underline{\hspace{2cm}} \text{ in}^3$$

2.



radius: $r = \frac{\underline{\hspace{2cm}}}{2} = \underline{\hspace{2cm}} \text{ mm}$

Surface Area: $S = 4 \cdot \pi \cdot \underline{\hspace{2cm}}^2$

$$= 4 \cdot \underline{\hspace{2cm}} \pi = \underline{\hspace{2cm}} \text{ mm}^2$$

Volume: $V = \frac{4}{3} \cdot \pi \cdot \underline{\hspace{2cm}}^3$

$$= \frac{4}{3} \cdot \underline{\hspace{2cm}} \pi = \underline{\hspace{2cm}} \text{ mm}^3$$

3. A sphere with radius of 9 cm. Surface Area: _____

Volume: _____

4. What is the **volume** of a sphere whose **surface area** is $196\pi \text{ yd}^2$?

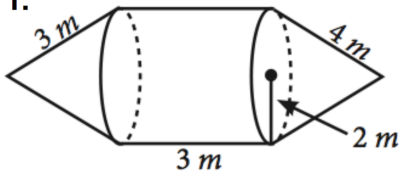
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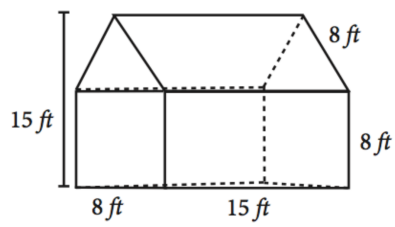
Surface Area and Volume of Composite Figures

Find the total Surface Area and Volume of the following shapes.

1.



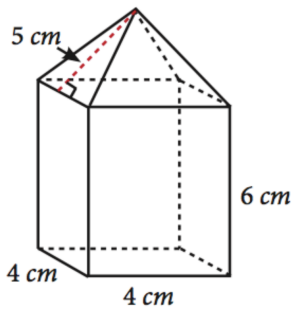
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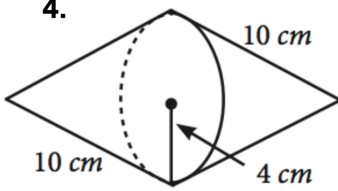
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3.



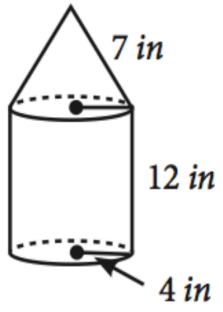
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Name:

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5.



6.

