

6th: Solids Check in Quiz

Find the surface area of each figure. Round your answers to the nearest hundredth, if necessary.

2)

$5 \times 10 \times 10$
 $5 \times 10 \times 5$
 $5 \times 5 \times 5$

$16 \times 2 = 32 \text{ yd}^2$
 $6 \times 2 = 10 \text{ yd}^2$
 $10 \times 2 = 20 \text{ yd}^2$

$SA = 82 \text{ yd}^2$

2)

4 m
 4 m
 3 m

$A = \frac{4(3)}{2} = 7.2 \text{ mi}^2$

$SA = 16 \text{ mi}^2 + 28.8 \text{ mi}^2$
 $SA = 44.8 \text{ mi}^2$

3)

10.8 km
 8 km
 8 km

$SA = \left[\frac{0.8 \text{ km}(8 \text{ km})}{2} \right] 4 + 8 \text{ km}(8 \text{ km})$

$SA = (43.2 \text{ km}^2) 4 + 64 \text{ km}^2$
 $SA = 236.8 \text{ km}^2$

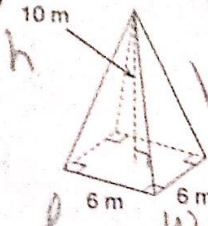
4)

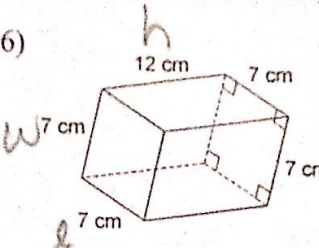
10 mi
 10 mi
 3 mi

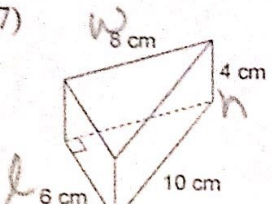
$SA = 10 \text{ mi}(10 \text{ mi}) \times 2 + 3 \text{ mi}(10 \text{ mi}) \times 4$

$SA = 200 \text{ mi}^2 + 120 \text{ mi}^2$
 $SA = 320 \text{ mi}^2$

Find the volume of each figure. Round your answers to the nearest hundredth, if necessary.

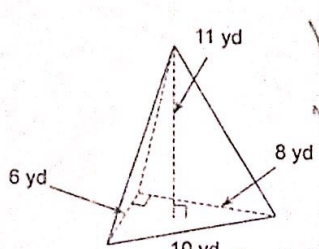
5)  $V = \frac{1}{3} \cdot l \cdot w \cdot h$
 $V = \frac{(6\text{ m})(6\text{ m})(10\text{ m})}{3}$
 $V = 120\text{ m}^3$

6)  $V = l \cdot w \cdot h$
 $V = 7\text{ cm}(7\text{ cm})(12\text{ cm})$
 $V = 588\text{ cm}^3$

7)  $V = \frac{l \cdot w \cdot h}{2}$

$$V = \frac{6\text{ cm}(8\text{ cm})(4\text{ cm})}{2}$$

$$V = 96\text{ cm}^3$$

8)  $V = \frac{1}{3}(\text{area of base}) \cdot h$
 $V = \frac{24\text{ yd}^2 \cdot 11\text{ yd}}{3}$
 $V = 88\text{ yd}^3$
 area of base = $\frac{6\text{ yd} \cdot 8\text{ yd}}{2}$
 $= 24\text{ yd}^2$