

a.

$$SA = 452 \text{ in}^2 = 4\pi r^2$$

$$\frac{452}{4\pi} = \frac{4\pi r^2}{4\pi}$$

$$\sqrt{35.969} = \sqrt{r^2}$$

$$5.997 = r \quad (1)$$

- ① solve for 'r'
- ② $d = 2r$

$$452 / (4\pi)$$

$$(2) d = 2(5.997) = 11.995 = 12 \text{ in}$$

hemisphere:

10. $d = 20 \text{ cm}$ $r = 10 \text{ cm}$

15

p. 52

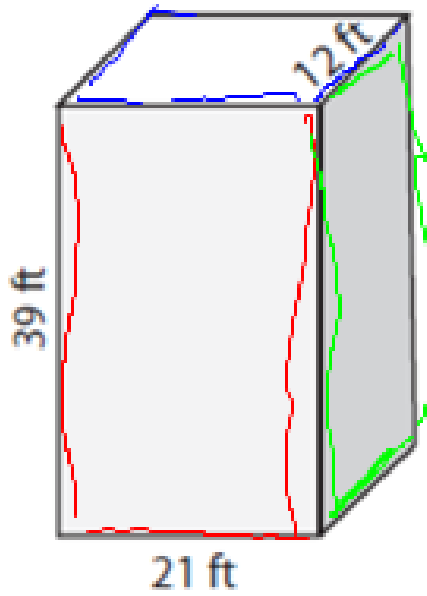
a) capacity $V = \frac{4\pi r^3}{3} \cdot \frac{1}{2} = \frac{4\pi r^3}{6}$

$$V = \frac{2\pi r^3}{3} = \frac{2\pi(10)^3}{3} = 2094.395 \text{ cm}^3$$

$$1 \text{ L} = 1000 \text{ cm}^3$$

$$a) 2094.395 \text{ cm}^3 \times \frac{1 \text{ L}}{1000 \text{ cm}^3} = 2.1 \text{ L}$$

$$b) 1 \text{ cup} = 250 \text{ mL} = 0.250 \text{ L} \quad \frac{2.1 \text{ L}}{0.250 \text{ L/cup}} = 8.4 \text{ cups}$$



Sum of area of all faces

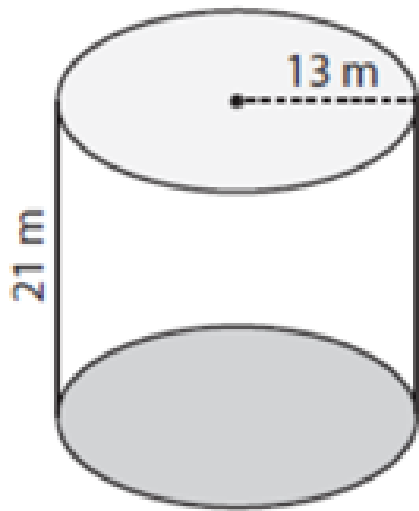
$$SA = 2 \begin{array}{|c|} \hline 12 \\ \hline 21 \\ \hline \end{array} + 2 \begin{array}{|c|} \hline 39 \\ \hline 21 \\ \hline \end{array} + 2 \begin{array}{|c|} \hline 39 \\ \hline 12 \\ \hline \end{array}$$

$$SA = 2(l \cdot w) + 2(l \cdot h) + 2(w \cdot h)$$

$$SA = 2(12 \cdot 21) + 2(39 \cdot 21) + 2(12 \cdot 39)$$

$$SA = 504 + 1638 + 936$$

$$SA = 3078 \text{ ft}^2$$



$$SA = \underbrace{2\pi r^2}_{\text{2 circles}} + \underbrace{2\pi rh}_{\text{around cylinder}}$$

$$SA = 2\pi(13)^2 + 2\pi(13)(21)$$

$$SA = 1061.858 + 1715.309$$

$$SA = 2777.16 \text{ m}^2$$

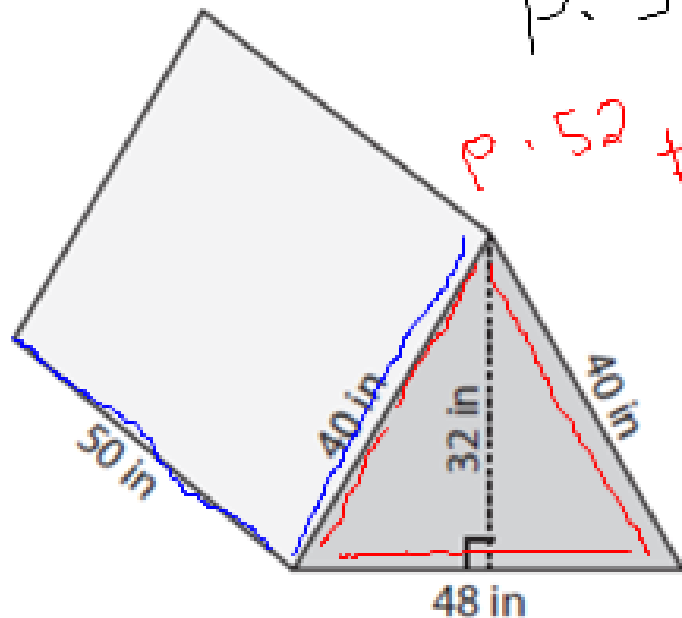
$$V = (\text{area of base}) \times h$$

$$V = \pi r^2 h = \pi (13)^2 (21) = 11149.51 \text{ m}^3$$

quiz review
p. 54 # 1-5, 6-7

p. 52 # 15

Quiz - Oct 7th
Test - Oct 14th



$$SA = 2 \triangle + 2 \begin{array}{|c|c|} \hline 50 & \\ \hline & 40 \\ \hline \end{array} + \begin{array}{|c|c|} \hline 50 & \\ \hline & 48 \\ \hline \end{array}$$

$$SA = 2 \left(\frac{bh}{2} \right) + 2(l \cdot w) + (l \cdot w)$$

$$SA = (48)(32) + 2(50 \cdot 40) + (50 \cdot 48) = 7936 \text{ in}^2$$