

Mth 112 Tues 8-28-12

27
Pg
276

$$2y^2 - \frac{7}{2} = \frac{y}{2}$$

$$4y^2 - 7 = y$$

$$4y^2 - y - 7 = 0$$

$$a = 4$$

$$b^2 - 4ac$$

$$b = -1$$

$$(-1)^2 - 4(4)(-7)$$

$$c = -7$$

$$1 + 112 = 113 = d$$

$$y = \frac{1 \pm \sqrt{113}}{8}$$

CK on next pg

$$\stackrel{OK}{=} 2 \left(\frac{1+\sqrt{113}}{8} \right)^2 - \frac{7}{2} \stackrel{?}{=} \frac{\left(\frac{1+\sqrt{113}}{8} \right)}{2}$$

$$2 \left[\frac{(1+\sqrt{113})}{8} \cdot \frac{(1+\sqrt{113})}{8} \right] - \frac{7}{2} \stackrel{?}{=} \frac{1+\sqrt{113}}{16}$$

$$\frac{1}{2} \left[\frac{1 + 2\sqrt{113} + 113}{64 \cancel{32}} \right] - \frac{7}{2} \stackrel{?}{=} \frac{1+\sqrt{113}}{16}$$

$$\frac{114 + 2\sqrt{113}}{32} - \frac{7}{2} = \frac{1+\sqrt{113}}{16}$$

$$\frac{57 + \sqrt{113}}{16} - \frac{56}{16} = \frac{1+\sqrt{113}}{16}$$

$$\frac{1+\sqrt{113}}{16} = \frac{1+\sqrt{113}}{16}$$

✓

$$\textcircled{P3} \textcircled{1} \quad 7N^2 - 10 = -2N$$

$$7N^2 + 2N - 10 = 0$$

$$a = 7$$

$$b^2 - 4ac$$

$$b = 2$$

$$(2)^2 - 4(7)(-10)$$

$$c = -10$$

$$4 + 280 = \textcircled{284 = d}$$

$$\begin{array}{r} 284 \\ \wedge \\ 4 \quad 71 \end{array}$$

$$N = \frac{-2 \pm 2\sqrt{71}}{14} = \boxed{\frac{-1 \pm \sqrt{71}}{7}}$$

$$\underline{\text{CK}} \quad 7\left(\frac{-1 + \sqrt{71}}{7}\right)^2 - 10 \stackrel{?}{=} -2\left(\frac{-1 + \sqrt{71}}{7}\right)$$

$$\cancel{7} \left[\frac{1 - 2\sqrt{71} + 71}{\cancel{49} 7} \right] - 10 \stackrel{?}{=} \frac{2 - 2\sqrt{71}}{7}$$

$$\frac{72 - 2\sqrt{71}}{7} - \frac{70}{7} \stackrel{?}{=} \frac{2 - 2\sqrt{71}}{7}$$

$$\frac{2 - 2\sqrt{71}}{7} \stackrel{?}{=} \frac{2 - 2\sqrt{71}}{7} \quad \checkmark$$

Pg 280 (47)

$$\sqrt[3]{x-7} = 3$$

$$[(x-7)^{\frac{1}{3}}]^3 = (3)^3$$

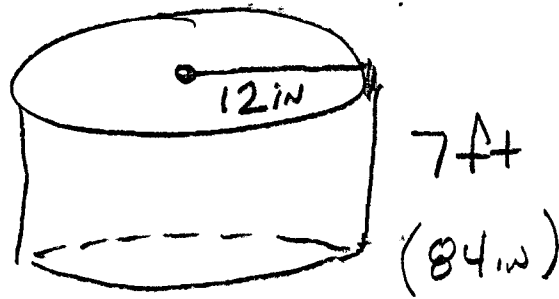
$$x-7 = 27$$

$$\boxed{\hat{x} = 34}$$

CK

$$\sqrt[3]{34-7} \stackrel{?}{=} 3 \quad \checkmark$$

(Ex)



Volume = ?

 in^3

$$(A_{\text{base}})(h)$$

$$(144\pi)(84)$$

$$12096\pi \text{ in}^3$$

$$\begin{array}{r} 144 \\ 84 \\ \hline \end{array}$$

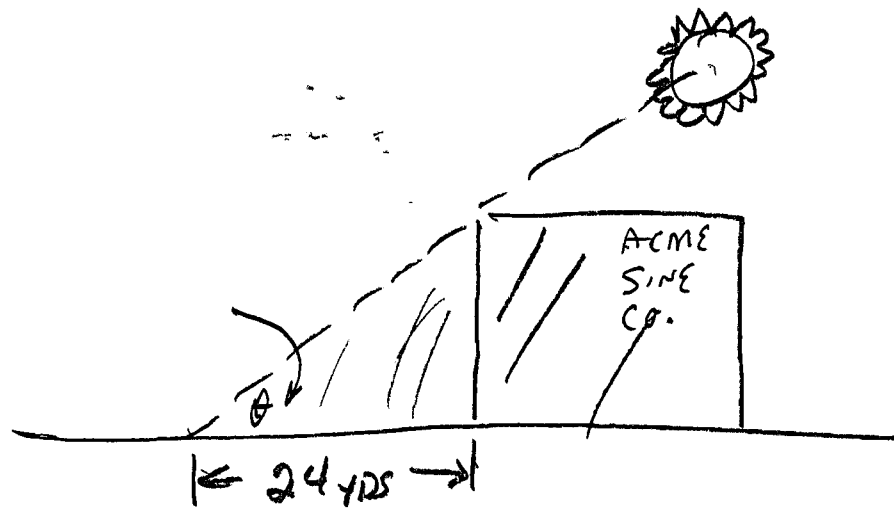
$$\begin{array}{r} 1576 \\ 1158 \\ \hline 12096 \end{array}$$

$$7 \text{ ft}$$

$$(A_{\text{base}})(7)$$

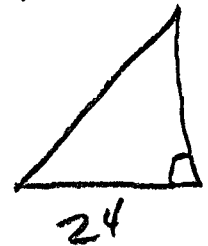
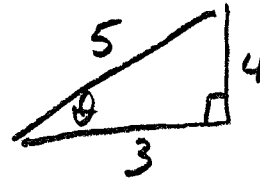
$$\pi(7) = 7\pi \text{ ft}^3 \quad \frac{(12^3)\text{in}^3}{1\text{ft}^3} \checkmark$$

(54)



θ has a sine of $\frac{4}{5}$
Find h of building in yds.

$$\sin \theta = \frac{O}{H} = \frac{4}{5}$$



$$\therefore \frac{3}{24} = \frac{4}{h}$$

$$3h = \frac{4 \cdot 24}{3}$$

$$h = 32 \text{ yds}$$