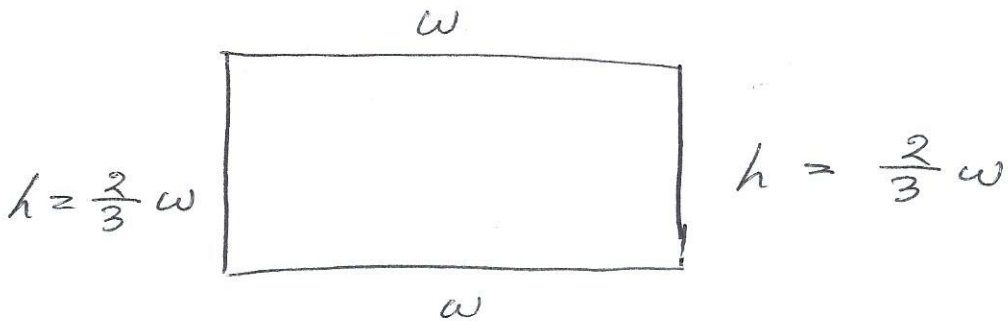


Date : 04.18.19

Web assign problem 06 :



$$\begin{aligned} \text{perimeter, } P &= 2w + \frac{4}{3}w \\ &= \frac{6}{3}w + \frac{4}{3}w \\ &= \frac{10}{3}w \end{aligned}$$

$$\text{height, } h = \frac{2}{3}w$$

$$\text{Now, } \frac{10}{3}w = 4$$

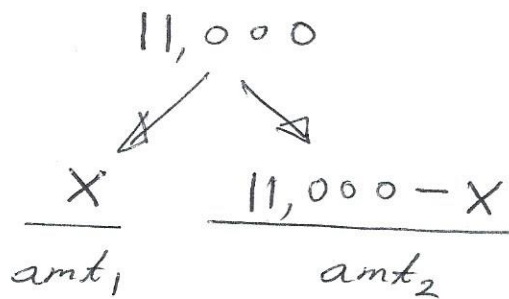
$$\Rightarrow \left(\frac{10}{3}w\right) \left(\frac{3}{10}\right) = 4 \left(\frac{3}{10}\right)$$

$$\Rightarrow w = \frac{6}{5}m$$

$$\text{height, } h = \frac{2}{3} \cdot \frac{2}{5} \text{ m}$$

$$= \frac{4}{5} \text{ m}$$

9.



$$(\text{amt}_1)(\text{rate}_1) + (\text{amt}_2)(\text{rate}_2) \\
 = \text{total income}$$

$$(x)(0.045) + (11,000 - x)(0.05) \\
 = 520$$

$$\left. \begin{array}{l} 4\frac{1}{2}\% \\ = 4.5\% \\ = \frac{4.5}{100} \end{array} \right\}$$

$$\Rightarrow 0.045x + 550 - 0.05x = 520$$

$$\Rightarrow -0.005x + 550 = 520$$

$$\begin{array}{ccc}
 & -550 & -550 \\
 & \hline
 & -30 &
 \end{array}$$

$$\Rightarrow \frac{-0.005x}{-0.005} = \frac{-30}{-0.005}$$

$$x = 6000$$

$$\text{amount} = 11,000 - 6000$$

$$= \boxed{5000}$$

10.

$$(x)(0.29) + (60,000 - x)(0.17)$$

$$= (60,000)(0.2)$$

$$\Rightarrow 0.29x + 0.17x + 10,200 = 22,200$$

$$\Rightarrow 0.12x + 10,200 = 22,000$$

$$\begin{array}{r} - 10,200 \\ - 10,200 \end{array}$$

$$\Rightarrow \frac{0.12x}{0.12} = \frac{11,800}{0.12}$$

$$\therefore x = \boxed{98,333.33}$$