

Q11

$\triangle ABC$ - equivalent trapezoid
 $\underline{\underline{2D}}$ DEFG

$$\frac{b \times h_1}{2} = \frac{(B+b)h_2}{2}$$

$$\frac{(h_1 + 20)h_1}{2} = \frac{(80 + 32)48}{2}$$

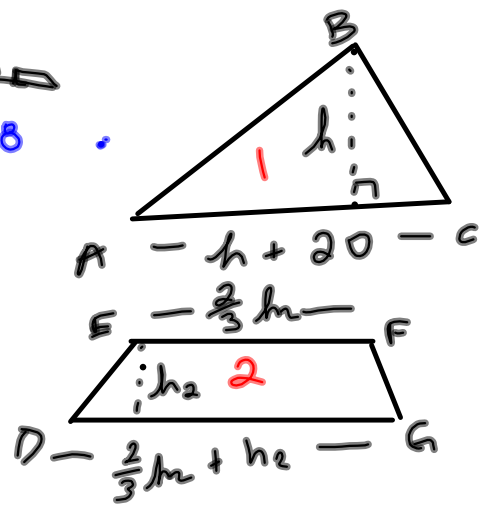
$$\frac{2}{3}h_2 + \frac{2}{3}h_2 + h_2 + h_2 = 160$$

$$\frac{4}{3}h_2 + \frac{2}{3}h_2 = 160$$

$$3 \times \frac{10}{3}h_2 < 160 \times 3$$

$$\frac{10}{10}h_2 = \frac{480}{10}$$

$$h_2 = 48$$



$$b_2 = \frac{2}{3}(48) = 32$$

$$B_2 = \frac{2}{3}(48) + 48 = 80$$