

# Geo Hw 4-5 Ans

① SF  $\rightarrow 1:4$   
 Perim ratio  $\rightarrow 1:4$

$$\frac{1}{4} = \frac{28}{x}$$

$$\boxed{x = 112}$$

② SF  $\rightarrow 2:7$   
 Area ratio  $\rightarrow 2^2:7^2$   
 $4:49$

$$\frac{4}{49} = \frac{x}{147}$$

$$\boxed{x = 12}$$

③ Area ratio  $\rightarrow 4:25$   
 SF  $\rightarrow \sqrt{4}:\sqrt{25}$   
 $2:5$

$$\frac{2}{5} = \frac{4x+2}{9x+8}$$

$$\begin{aligned} 4(3)+2 &= 14 \\ 9(3)+8 &= 35 \end{aligned}$$

$$20x+10 = 18x+16$$

$$2x = 6$$

$$x = 3$$

Perim ratio  $\rightarrow 2:5$

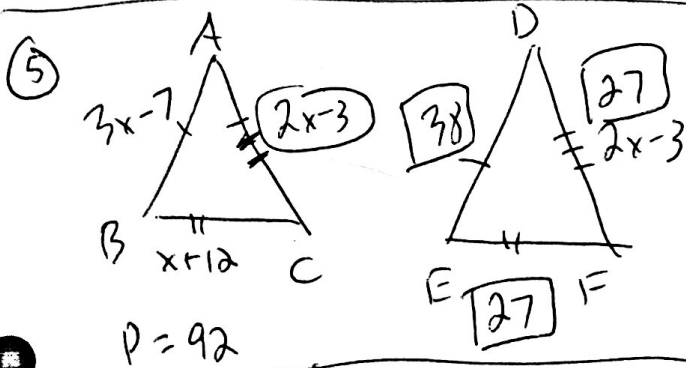
④ SF  $\rightarrow 1:3$   
 Area ratio  $\rightarrow 1^2:3^2$   
 $1:9$

$$\frac{1}{9} = \frac{x+2}{10x+8}$$

$$\begin{aligned} 10+2 &= 12 \\ 10(10)+8 &= 108 \end{aligned}$$

$$10x+8 = 9x+18$$

$$x = 10$$



$$3x-7 + 2x-3 + x+12 = 92 \quad (\text{3 sides add to perim})$$

$$6x+2 = 92$$

$$6x = 90$$

$$\boxed{x = 15}$$

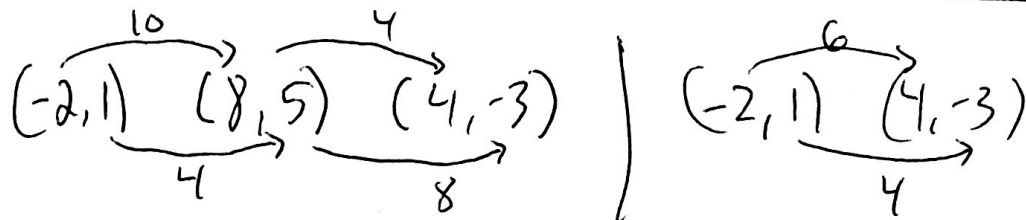
$$27^2 + 27^2 \stackrel{?}{=} 38^2$$

$$1458 \neq 1444$$

$\star \Delta DEF$  is isos

$\star \Delta DEF$  is acute

(6)



$$10^2 + 4^2 = a^2$$

$$\sqrt{116} = \sqrt{a^2}$$

$$a = \sqrt{116}$$

$$4^2 + 8^2 = b^2$$

$$\sqrt{80} = \sqrt{b^2}$$

$$b = \sqrt{80}$$

$$6^2 + 4^2 = c^2$$

$$\sqrt{52} = \sqrt{c^2}$$

$$c = \sqrt{52}$$

$$(\sqrt{116})^2 \stackrel{?}{=} (\sqrt{80})^2 + (\sqrt{52})^2$$

$$116 \stackrel{?}{=} 80 + 52$$

$$116 \neq 132$$

( $\angle$ )

\*  $\Delta$  is acute and scalene \*

(7)



$$SF \rightarrow \frac{5}{12}$$

(6)

$$A_R = 10 \cdot 8 = 80$$

$$A_1 = \frac{1}{2}(10)(4) = 20$$

$$A_2 = \frac{1}{2}(4)(8) = 16$$

$$A_3 = \frac{1}{2}(6)(4) = 12$$

$$20 + 16 + 12 = 48$$

$\boxed{32}$