

ratio of corr sides = perimeter ratio = area ratio
 (ratio of corr sides)²

$$\frac{11}{6} = \frac{11}{6} = \left(\frac{11}{6}\right)^2 = \frac{121}{36}$$

⑤

$$\frac{5}{8} = \frac{5}{8} = \left(\frac{5}{8}\right)^2 = \frac{25}{64}$$

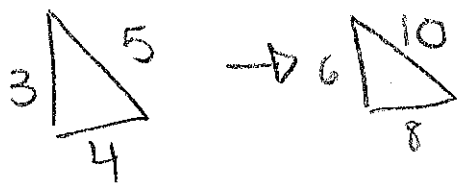
⑥

$$\frac{7}{4} = \frac{7}{4} = \left(\frac{7}{4}\right)^2 = \frac{49}{16}$$

⑦

$$\frac{9}{14} = \frac{9}{14} = \left(\frac{9}{14}\right)^2 = \frac{81}{196}$$

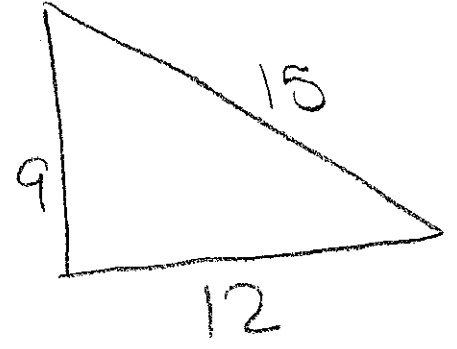
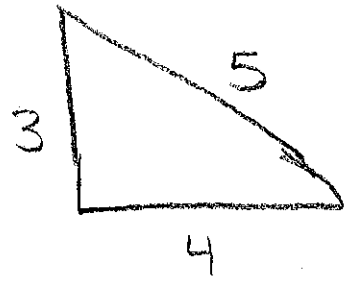
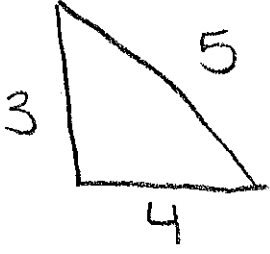
⑧ Try it



$$12 \rightarrow 24$$

It doubles!

9

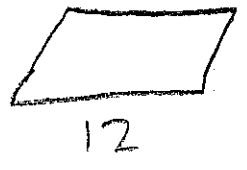


$P = 12$

$P = 36$

It triples!

10



Perimeter

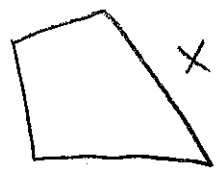
$$\frac{\text{First shape } 7}{\text{Second shape } 10} = \frac{x}{12}$$

Cross multiply:

$$\frac{10}{10} x = \frac{84}{10}$$

$$x = 8.4$$

11



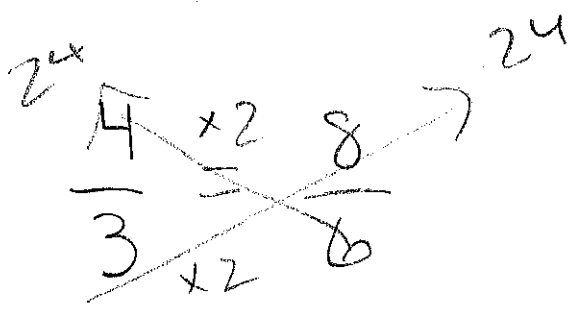
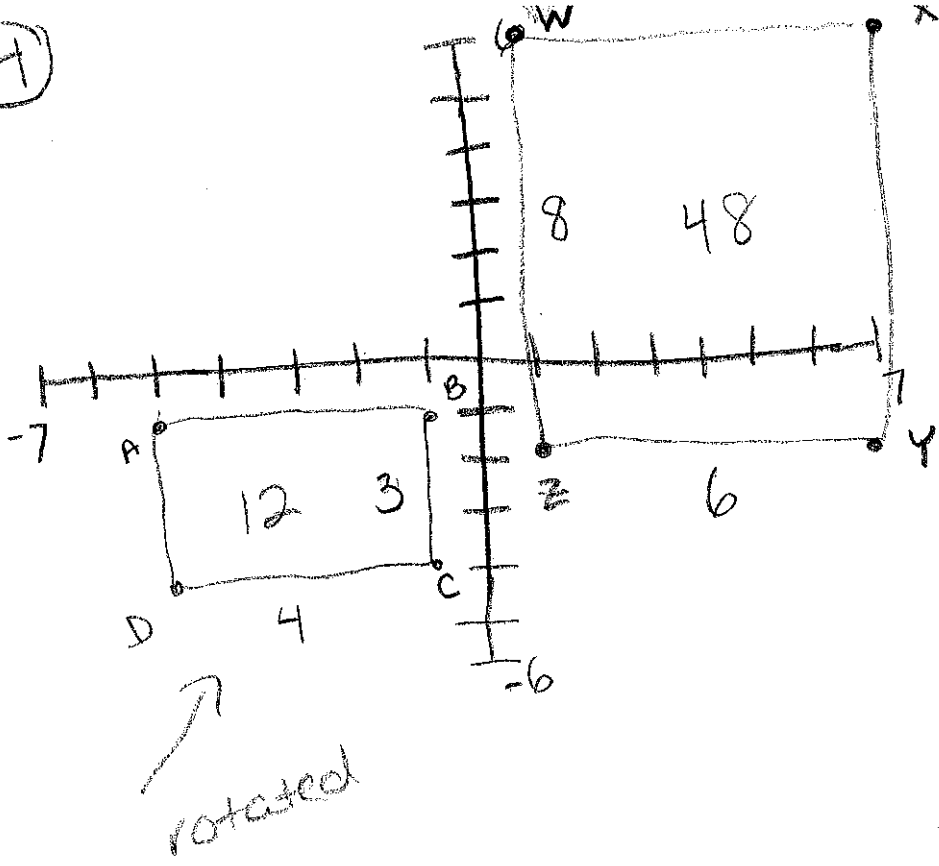
perimeter

$$\frac{\text{first } 8}{\text{second } 5} = \frac{x}{16}$$

$$\frac{5x}{5} = \frac{128}{5}$$

$$x = 25.6$$

(14)



Yes, cross products are equal

$$\frac{12}{48} = \frac{1}{4} \quad \checkmark \text{ area ratio} \quad \left(\frac{1}{2}\right)^2 = \frac{1}{4} \quad \checkmark$$

Corr side ratio

$$\frac{4}{8} = \frac{1}{2}$$