

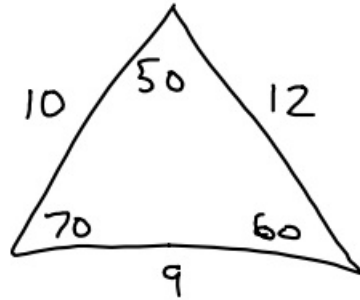
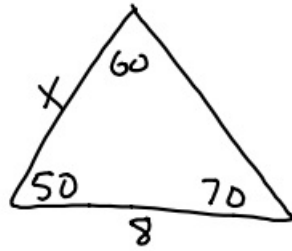
12-5-17 5th Geo

$$\triangle ABC \sim \triangle XYZ$$

What do you know is true?

$$\begin{aligned} \angle A &= \angle X & \frac{AB}{XY} &= \frac{BC}{YZ} = \frac{AC}{XZ} \\ \angle B &= \angle Y \\ \angle C &= \angle Z \end{aligned}$$

①

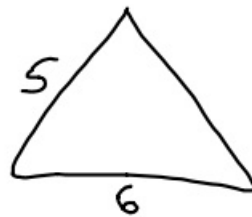
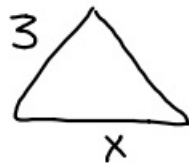
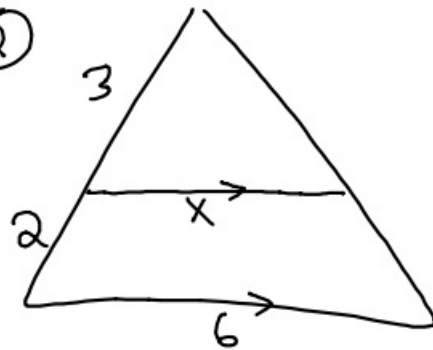


$$\frac{x}{12} = \frac{8}{10}$$

$$10x = 96$$

$$x = 9.6$$

②

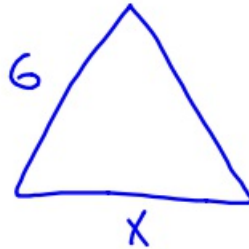
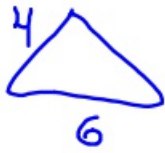
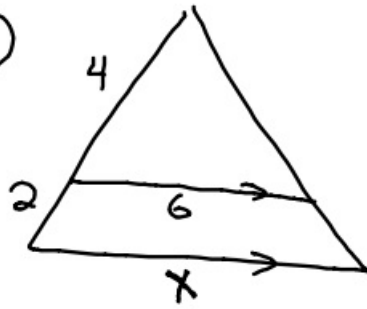


$$\frac{3}{5} = \frac{x}{6}$$

$$5x = 18$$

$$x = 3.6$$

③

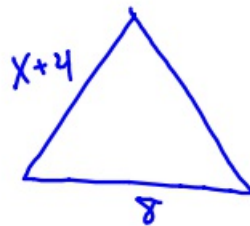
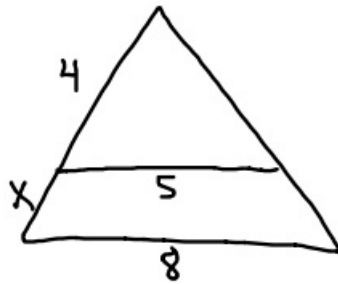


$$\frac{4}{6} = \frac{6}{x}$$

$$4x = 36$$

$$x = 9$$

④



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

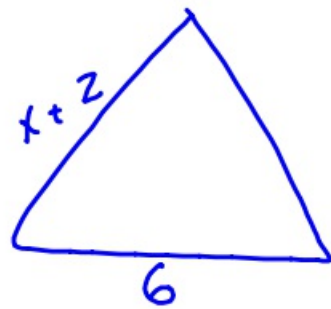
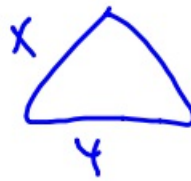
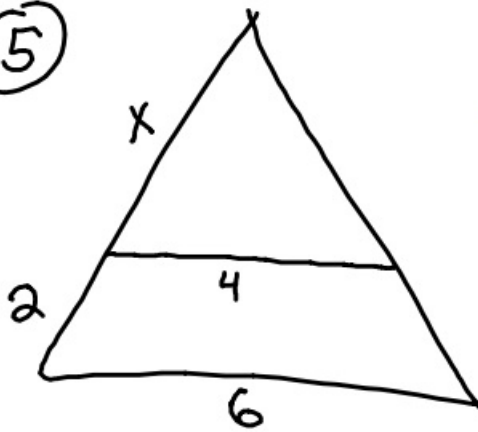
$$5(x+4) = 32$$

$$5x + 20 = 32$$

$$\begin{array}{r} 5x + 20 = 32 \\ -20 \quad -20 \\ \hline 5x = 12 \end{array}$$

$$x = 2\frac{2}{5}$$

(5)



$$\frac{x}{x+2} = \frac{4}{6}$$

$$6x = 4(x+2)$$

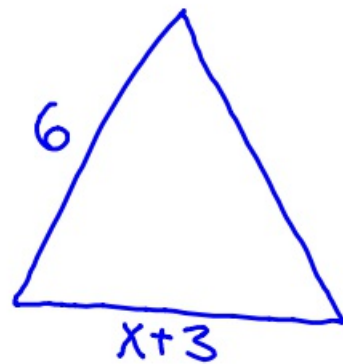
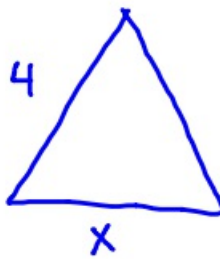
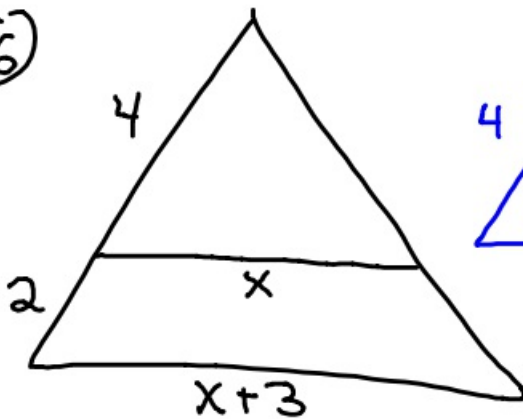
$$6x = 4x + 8$$

$$\begin{array}{r} -4x \quad -4x \\ \hline \end{array}$$

$$2x = 8$$

$$x = 4$$

(6)



$$\frac{4}{6} = \frac{x}{x+3}$$

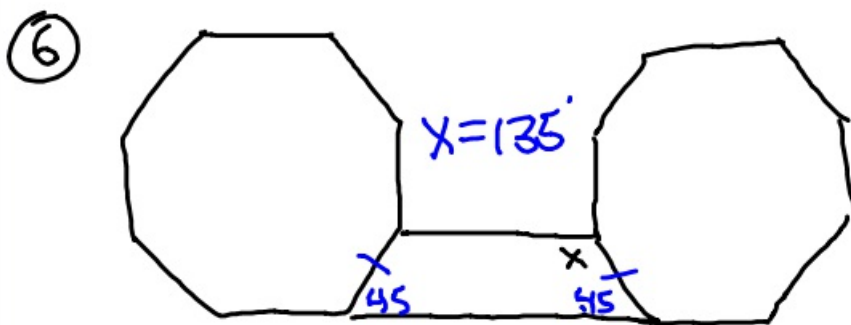
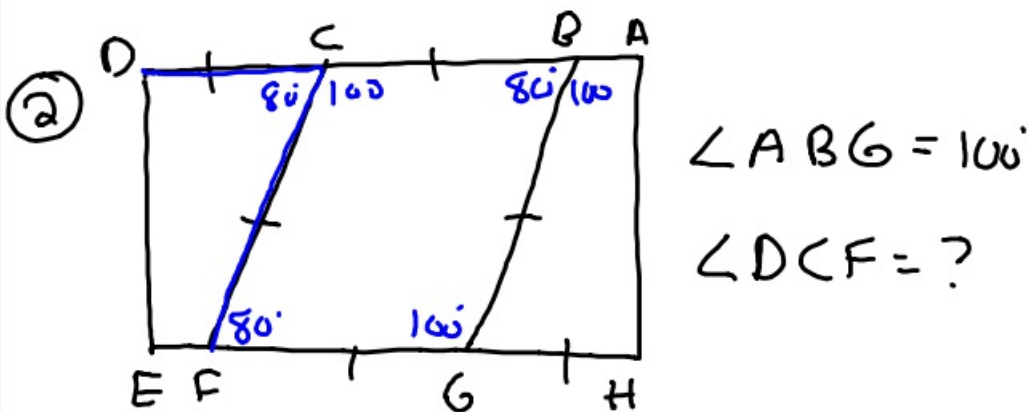
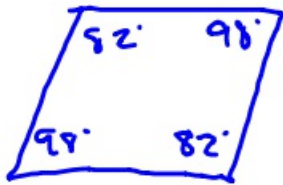
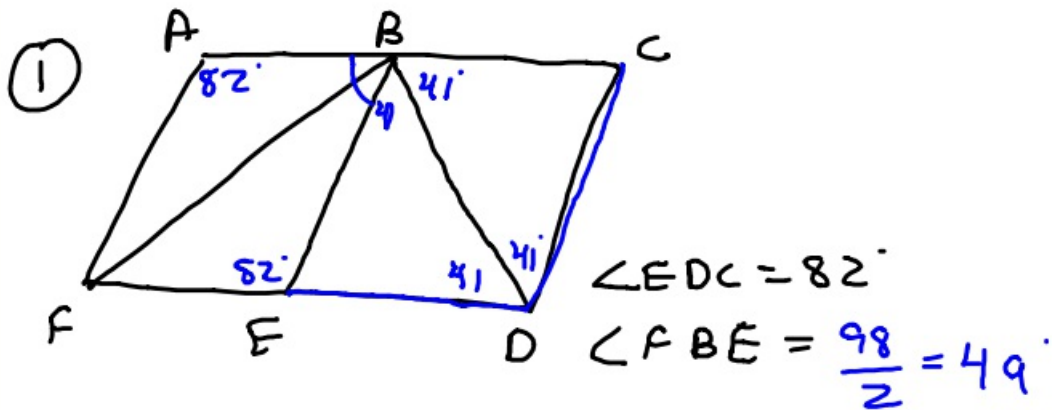
$$6x = 4(x+3)$$

$$6x = 4x + 12$$

$$2x = 12$$

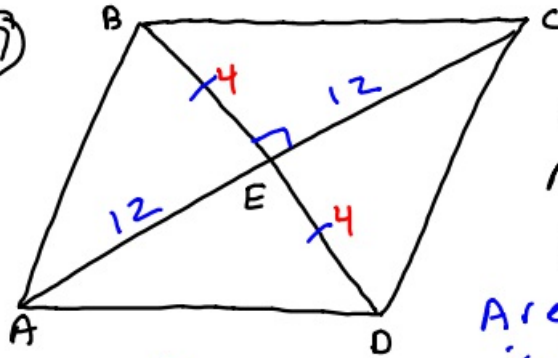
$$x = 6$$

Ch. 6 Test questions



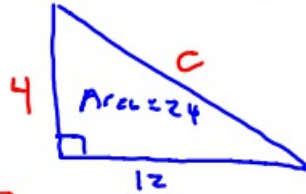
$$\angle \text{ext } \angle = \frac{360}{8} = 45^\circ$$

7



$$AC = 24$$
$$Area = 96 \text{ cm}^2$$
$$DC = ?$$

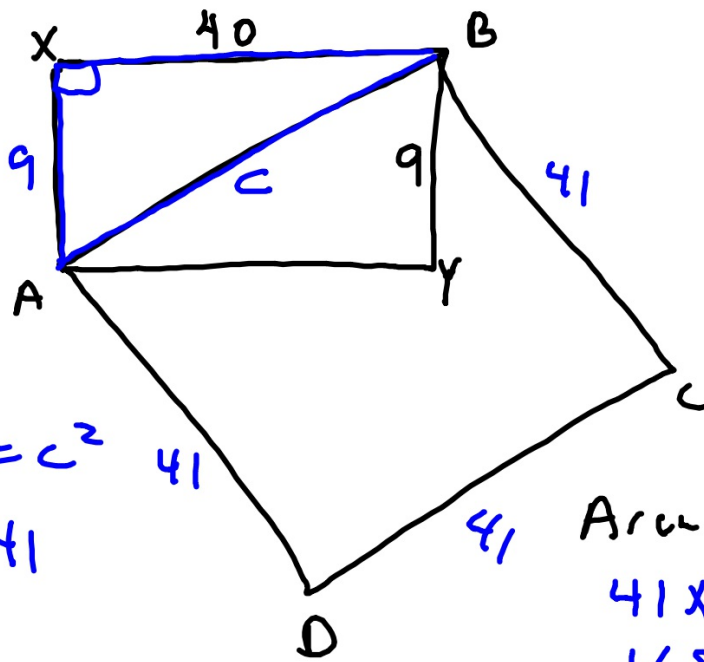
Area of each piece
is $\frac{96}{4} = 24$



$$12^2 + 4^2 = c^2$$
$$144 + 16 = c^2$$
$$\sqrt{160} = \sqrt{c^2} \quad c \approx 12.6$$

$$A = \frac{1}{2}bh$$
$$24 = \frac{1}{2} \cdot 12 \cdot h$$
$$24 = 6 \cdot h$$
$$h = 4$$

10



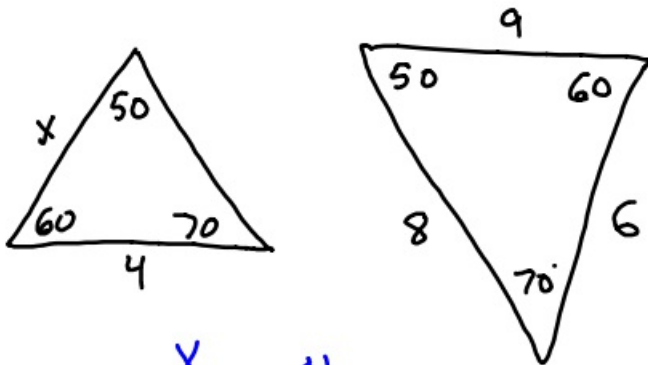
$$9^2 + 40^2 = C^2$$
$$C = 41$$

Area of ABCD
 41×41
1681

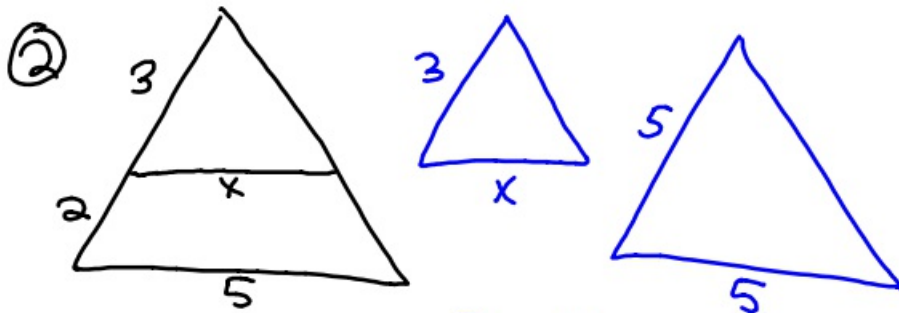
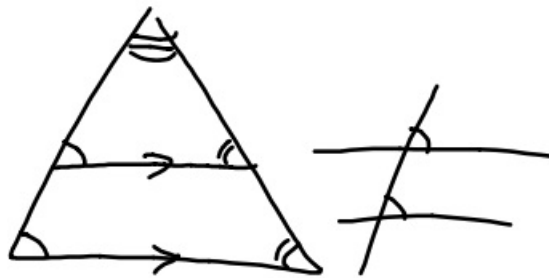
12-5-17 6th Geo

If $\triangle ABC \sim \triangle XYZ$, what is true?

$$\begin{aligned} \angle A &= \angle X \\ \angle B &= \angle Y \\ \angle C &= \angle Z \end{aligned} \quad \frac{AB}{XY} = \frac{BC}{YZ} = \frac{AC}{XZ}$$

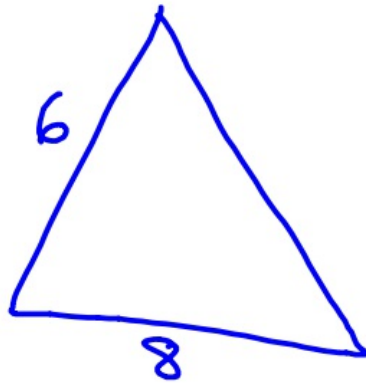
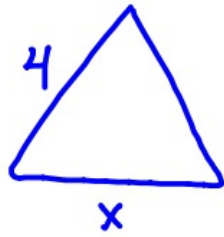
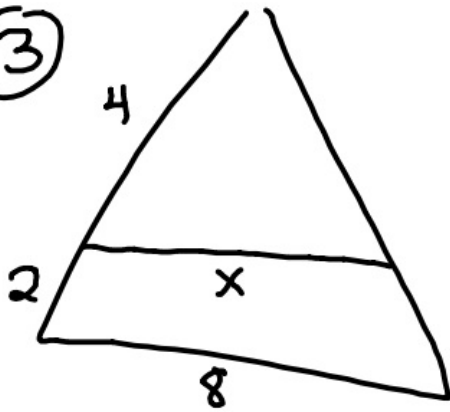


$$\begin{aligned} \frac{x}{9} &= \frac{4}{6} \\ 6x &= 36 \\ x &= 6 \end{aligned}$$



$$\begin{aligned} \frac{3}{5} &= \frac{x}{5} \\ 3x &= 15 \\ x &= 3 \end{aligned}$$

③

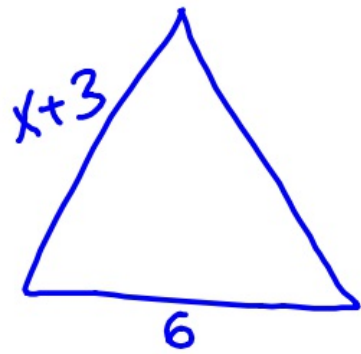
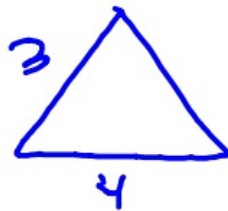
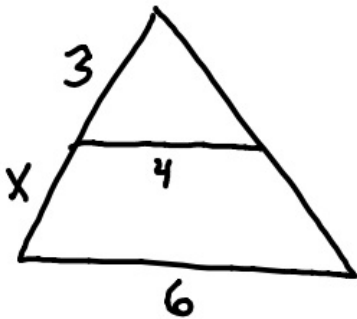


$$\frac{4}{6} = \frac{x}{8}$$

$$\frac{6x}{6} = \frac{32}{6}$$

$$x = 5.\bar{3}$$

④



$$\frac{3}{x+3} = \frac{4}{6}$$

$$4(x+3) = 18$$

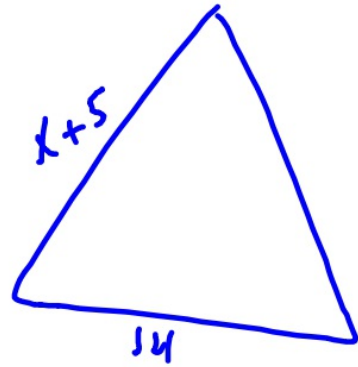
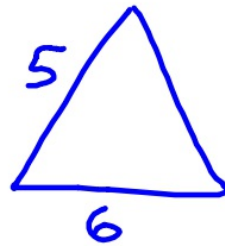
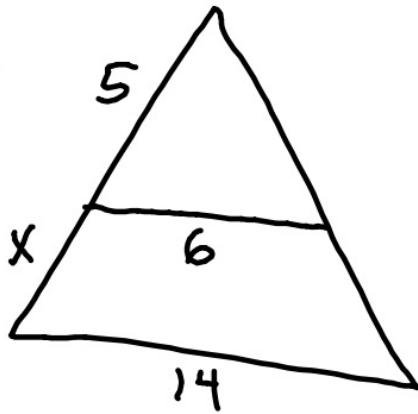
$$4x + 12 = 18$$

$$\begin{array}{r} 4x + 12 = 18 \\ -12 \quad -12 \\ \hline 4x = 6 \end{array}$$

$$4x = 6$$

$$x = 1\frac{1}{2}$$

⑤



$$\frac{5}{x+5} = \frac{6}{14}$$

$$6(x+5) = 70$$

$$6x + 30 = 70$$

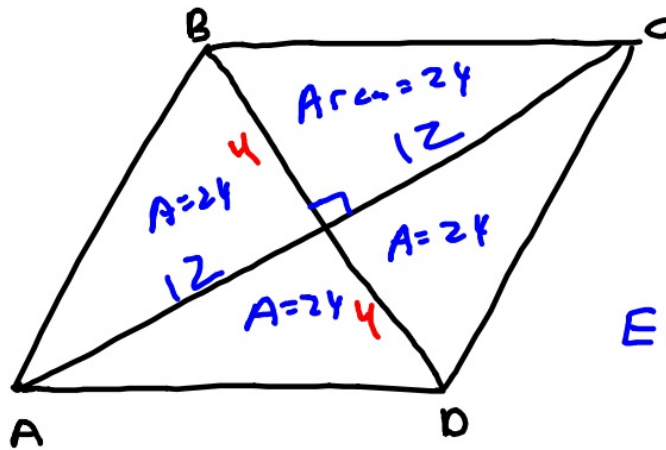
$$\begin{array}{r} 6x + 30 = 70 \\ -30 \quad -30 \\ \hline \end{array}$$

$$\frac{6x}{6} = \frac{40}{6}$$

$$x = 6\frac{2}{3}$$

Ch. 6 Test questions

7

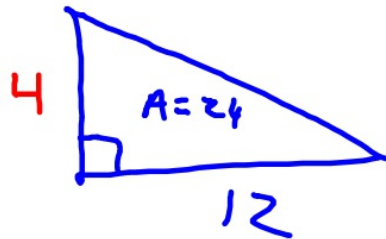


$$AC = 24$$

$$\text{Area} = 96 \text{ cm}^2$$

Each triangle is

$$\frac{96}{4} = 24$$

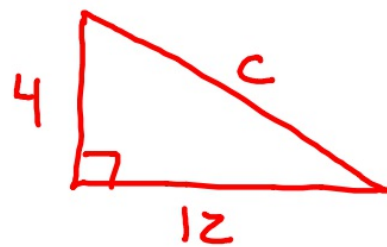


$$A = \frac{1}{2}bh$$

$$24 = \frac{1}{2} \cdot 12 \cdot h$$

$$24 = 6 \cdot h$$

$$h = 4$$



$$12^2 + 4^2 = c^2$$

$$\sqrt{160} = \sqrt{c^2}$$

$$c \approx 12.6$$

