

6.2 PRACTICE

State if the triangles in each pair are similar. If so, state how you know they are similar and complete the similarity statement.

1.

$\triangle DEF \sim \triangle DQR$
AA~

2.

$\triangle DCB \sim \triangle MLK$
SSS~

$$\frac{8}{32} = \frac{10}{40} = \frac{11}{44}$$

$$0.25 = 0.25 = 0.25$$

3.

$\triangle KLM \sim \triangle KLU$
SAS~

$$\frac{21}{77} = \frac{27}{99}$$

$$0.\overline{27} = 0.\overline{27}$$

4.

$\triangle LMN \sim \triangle VWN$
NO!

$$\frac{27}{42} \neq \frac{15}{27} \quad 0.64 \neq 0.7$$

5.

$\triangle DEF \sim \triangle DUV$
SAS~

$$\frac{12}{20} = \frac{18}{30}$$

$$0.6 = 0.6$$

6.

$\triangle UTS \sim \triangle UFE$
AA~

7.

$\triangle PQR \sim \triangle FGH$
SSS~

$$\frac{12}{27} = \frac{20}{45} = \frac{24}{54}$$

$$0.\overline{4} = 0.\overline{4} = 0.\overline{4}$$

8.

$\triangle FED \sim \triangle MFL$
NO!

$$\frac{12}{16} \neq \frac{12}{17}$$

$$0.75 \neq 0.71$$

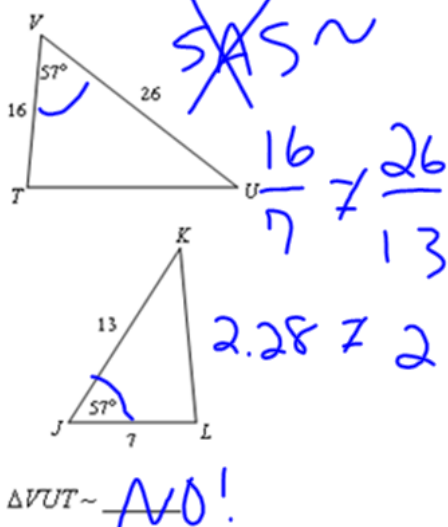
9.

$\triangle BCD \sim \triangle BQR$
SAS~

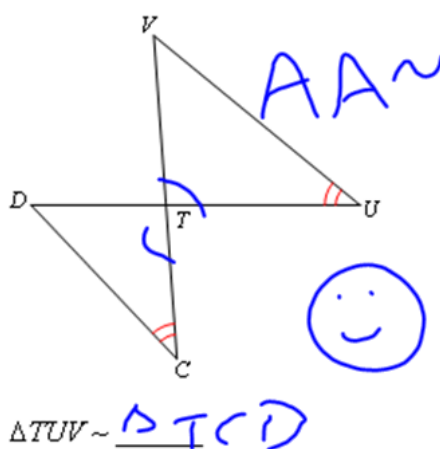
$$\frac{6}{12} = \frac{6}{12}$$

$$0.5 = 0.5$$

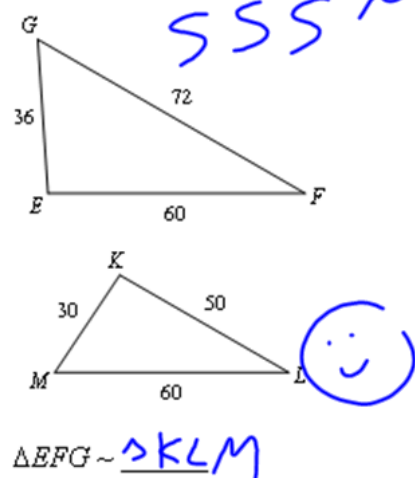
10.



11.



12.

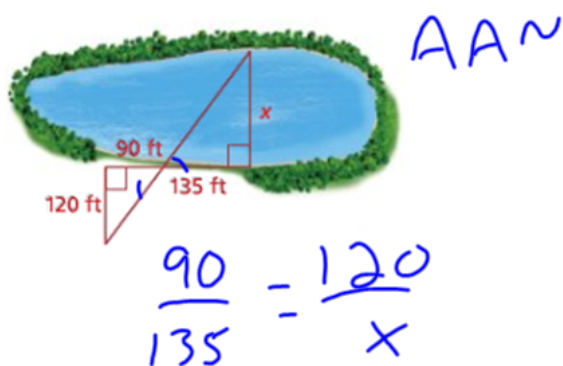


$$\frac{36}{30} = \frac{60}{50} = \frac{72}{60}$$

$$1.2 = 1.2 = 1.2$$

Explain why the triangles are similar. Then find x .

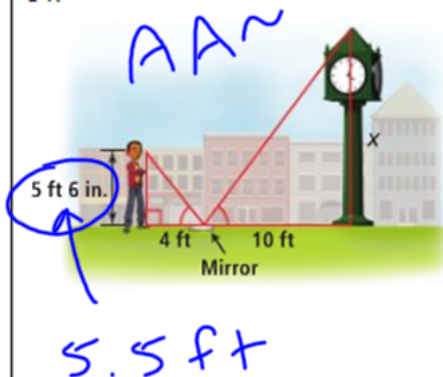
13.



$$\frac{90x}{90} = \frac{16200}{90}$$

$$x = 180 \text{ ft}$$

14.



$$\frac{5.5}{x} = \frac{4}{10}$$

$$\frac{4x}{4} = \frac{55}{4}$$

$$x = 13.75 \text{ ft}$$