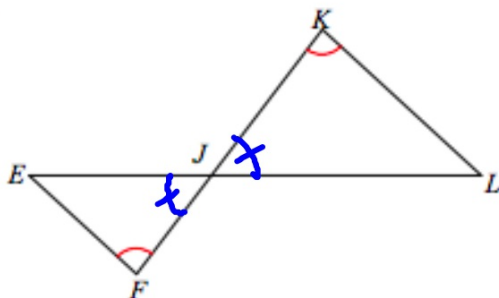


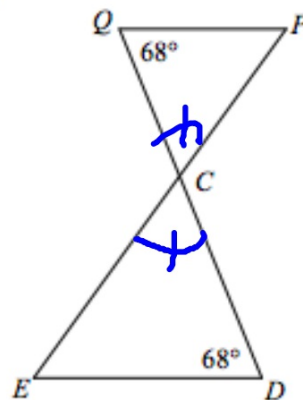
State if the triangles in each pair are similar.

1)

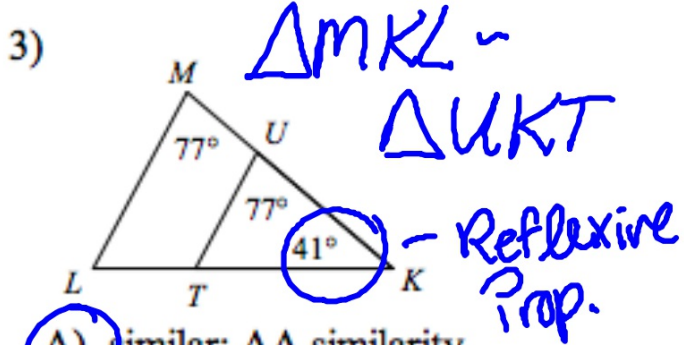


- A) similar; SSS similarity
- B) similar; SAS similarity
- C) similar; AA similarity
- D) not similar

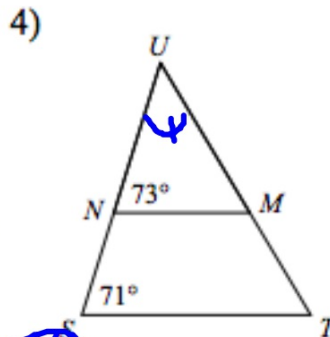
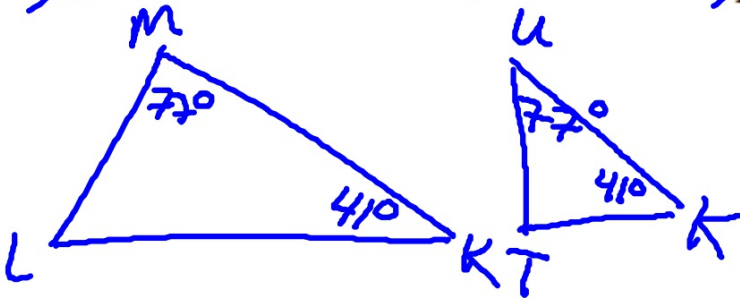
2)



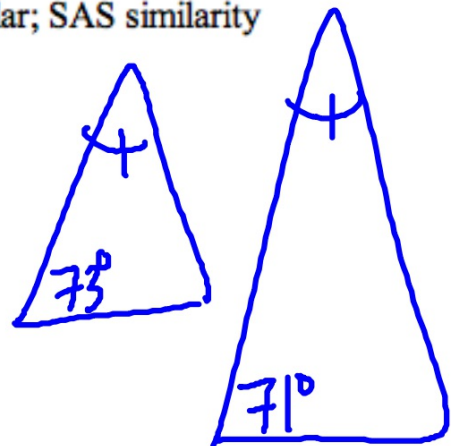
- A) not similar
- B) similar; AA similarity
- C) similar; SAS similarity
- D) similar; SSS similarity



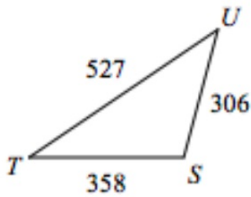
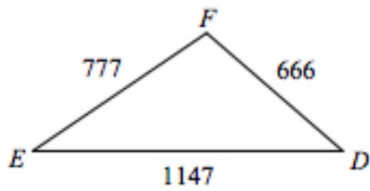
- A) similar; AA similarity
- B) not similar
- C) similar; SSS similarity
- D) similar; SAS similarity



- A) not similar
- B) similar; SSS similarity
- C) similar; AA similarity
- D) similar; SAS similarity



5)

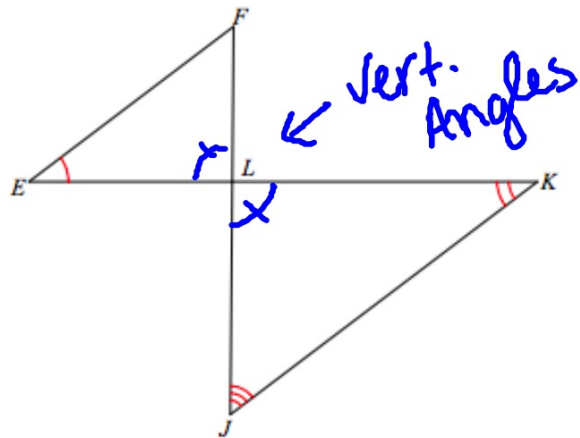


- ~~A) similar; SAS similarity~~
- ~~B) similar; AA similarity~~
- C) not similar
- D) similar; SSS similarity

$$\frac{1147}{527} = 2.18 \quad \frac{666}{306} =$$

$$\frac{777}{358} = 2.17$$

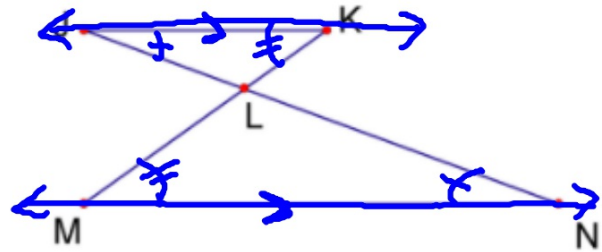
6)



- ~~A) similar; SAS similarity~~
- ~~B) similar; SSS similarity~~
- C) not similar
- D) similar; AA similarity

Ex 1) Given:  $\overline{JK} \parallel \overline{MN}$

Prove:  $\triangle JKL \sim \triangle NML$



Given

$$\overline{JK} \parallel \overline{MN}$$

Def. Alternate  
Interior  $\angle$ 's

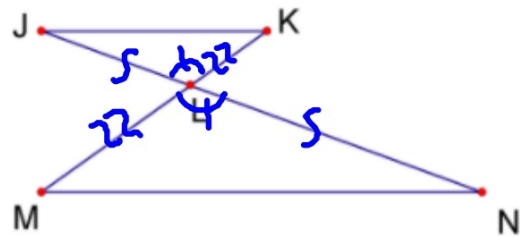
$$\angle J \cong \angle N, \angle K \cong \angle M$$

AA Similarity  
Postulate

$$\triangle JKL \sim \triangle NML$$

Ex 2) Given:  $\frac{JL}{LN} = \frac{KL}{LM}$

Prove:  $\triangle JKL \sim \triangle NML$



Given

$$\frac{JL}{LN} = \frac{KL}{LM}$$

Vertical  $\angle$ s are  $\cong$

$$\angle JLK \cong \angle NLM$$

SAS Similarity Postulate

$$\triangle JKL \sim \triangle NML$$

Ex 3) Given:  $\frac{AB}{DE} = \frac{AC}{DC} = \frac{BC}{EC}$

Prove:  $m\angle A = m\angle D$

Given

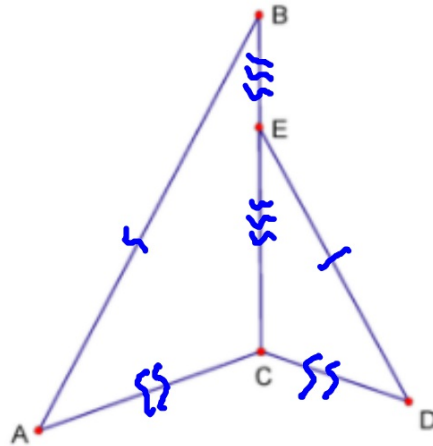
$$\frac{AB}{DE} = \frac{AC}{DC} = \frac{BC}{EC}$$

SSS Similarity Postulate

$$\triangle ABC \sim \triangle DEC$$

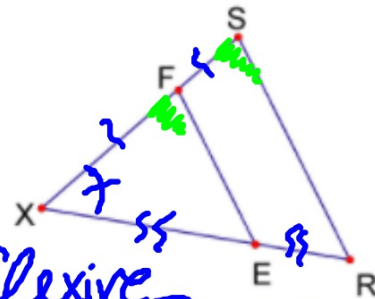
Definition of similarity

$$m\angle A = m\angle D$$



Ex 4) Given:  $\frac{XF}{XS} = \frac{XE}{XR}$

Prove  $\triangle XFE \cong \triangle XSE$



Given

$$\frac{XF}{XS} = \frac{XE}{XR}$$

$$\triangle X \cong \triangle X$$

Reflexive Property

SAS Similarity Postulate

$$\triangle XSE \sim \triangle XFE$$

Def. Similarity

$$\triangle XFE \cong \triangle XSE$$

Homework is Page 4