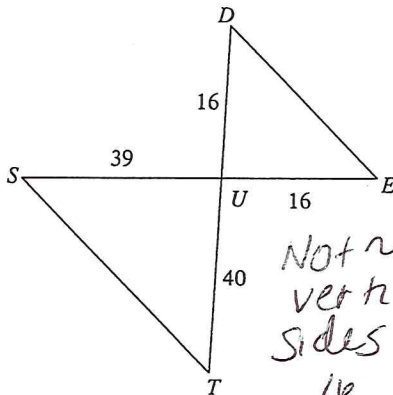


Similar Triangles

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

1)

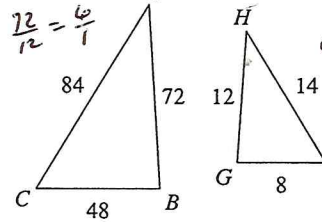


Not ~. Although
vertical $\angle$'s $\cong$,
sides not proportional

$$\frac{16}{40} = \frac{2}{5} \quad \frac{2}{5} \neq \frac{16}{39}$$

$\triangle UTS \sim$ N/A

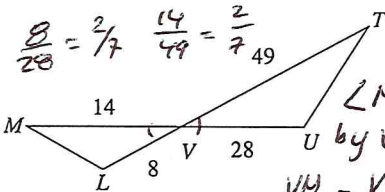
$$2) \quad \frac{48}{8} = \frac{6}{1} \quad \frac{84}{14} = \frac{6}{1}$$



$\triangle CBA \sim \triangle FGH$

Since $\frac{CB}{FG} = \frac{BA}{GH} = \frac{AC}{HF} = \frac{6}{1}$
corresponding
sides are proportional.
Therefore $\triangle CBA \sim \triangle FGH$
by SSS ~.

3)



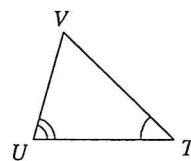
$\angle MVL \cong \angle TVU$
by vertical $\angle$'s $\cong$.

$\frac{VM}{VT} = \frac{VL}{VU} = \frac{2}{7}$, so
surrounding corresponding
sides are proportional.
Therefore, $\triangle VUT \sim$
 $\triangle VML$

by SAS ~.

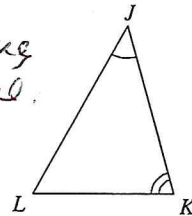
$\triangle VUT \sim \triangle VML$

4)



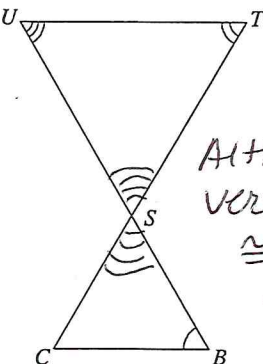
Since it is given that
 $\angle T \cong \angle J$ and $\angle U \cong \angle K$,
the $\triangle$'s are ~ by AA ~.
Therefore,

$\triangle VUT \sim \triangle LJK$



$\triangle JKL \sim \triangle TVU$

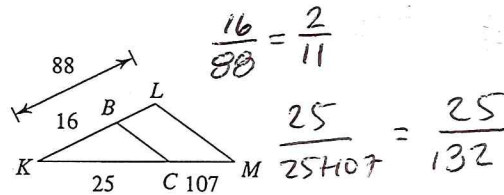
5)



Although the
vertical $\angle$'s are
 $\cong$, one $\angle$ pair
is not enough
into to conclude
 $\triangle$'s are ~

$\triangle STU \sim$ N/A

6)



$\triangle KLM \sim$ N/A

$$\frac{2}{11} \neq \frac{25}{132}$$

Although the 2 $\triangle$'s share
reflexive $\angle K$, the
surrounding sides are
not proportional.
The $\triangle$'s are not ~