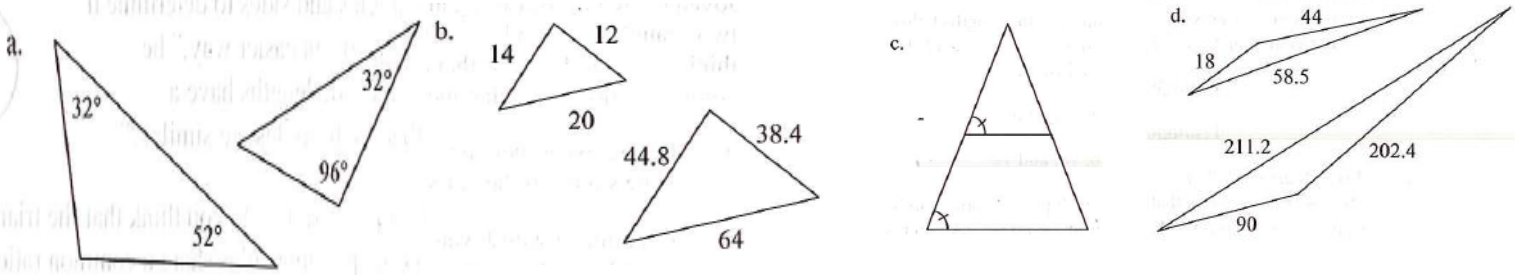
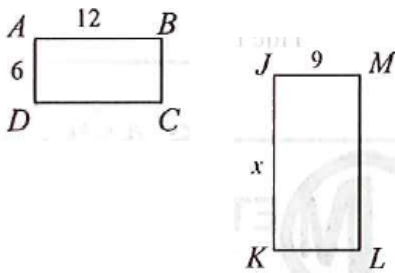


1. Decide if each pair of triangles below is similar and state the reason that they are similar.

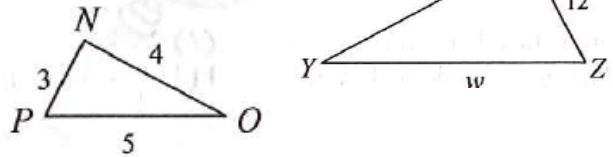


2. Find the value of the variable in each pair of similar figures below.

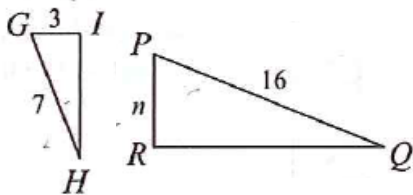
a.) $ABCD \sim JKLM$



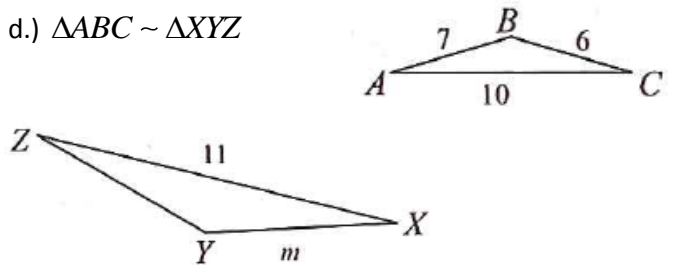
b.) $\triangle NOP \sim \triangle XYZ$



c.) $\triangle GHI \sim \triangle PQR$

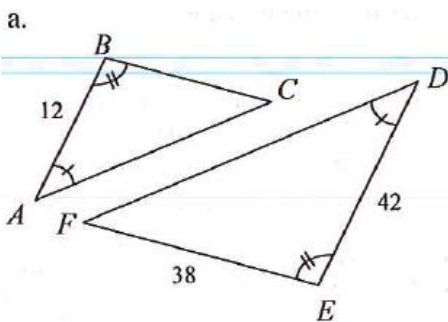


d.) $\triangle ABC \sim \triangle XYZ$

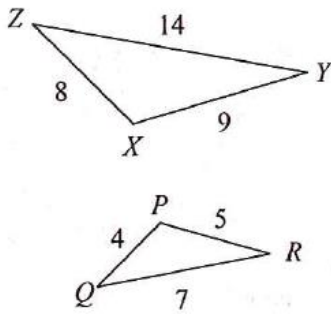


3. Decide if each pair of triangles below is similar and **state your reason**. If it is similar, find the measurement.

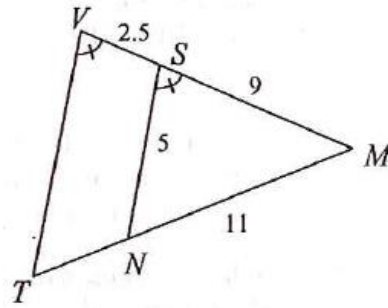
a.) If similar, find BC.



b.) Are these similar? State how you know.

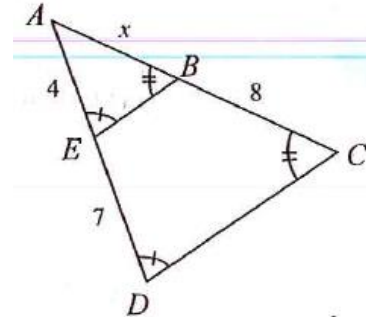


c.) If similar, find TN and VT.



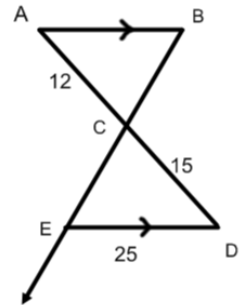
Advanced thinking Questions

4. a.) Are the triangles at right similar? Justify fully!
 b.) Solve for x and then, find AC and AB.

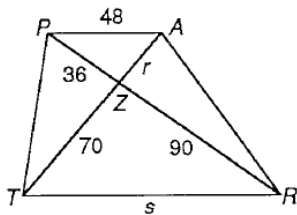


5. a.) Are the triangles at right similar? If so, write out the statement of similarity and justify.

 b.) If the triangles are similar, solve for side length AB.



6. *TRAP* is a trapezoid.
 Is $\angle RPA \cong \angle TRP$?
 Is $\angle PAT \cong \angle RTA$?
 Why is $\Delta PAZ \sim \Delta RTZ$?
 $r = -?-$
 $s = -?-$



7. $\Delta ABC \sim \Delta DEF$
 Use algebra to show that:
 If $\frac{a}{d} = \frac{c}{f}$, then $\frac{a}{c} = \frac{d}{f}$.

