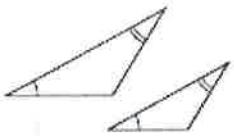
PROVING SIMILAR TRIANGLES NOTES

There are three ways to prove that two triangles are similar:

1. AA Similarity: (Angle-Angle)
   2 angles are congruent
2. SSS Similarity: (Side-Side-Side)
   3 sides are proportional
3. SAS Similarity: (Side-Angle-Side)
   2 sides are proportional and the angle in between is ≅.

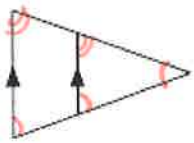
Determine whether the following pairs of triangles are similar. Justify your answer.

A



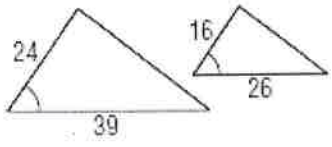
yes, AA

B)



yes, AA

C)

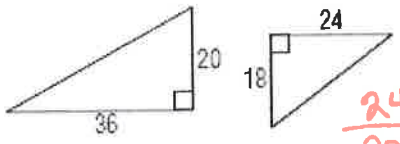


$\frac{16}{24} = \frac{2}{3}$

$\frac{26}{39} = \frac{2}{3}$

yes, SAS

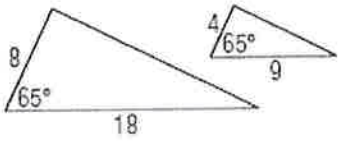
D)



no

$\frac{24}{20} \neq \frac{18}{36}$

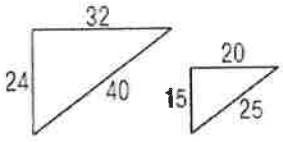
E)



$\frac{4}{8} = \frac{9}{18} = \frac{1}{2}$

yes, SAS

F)



$\frac{20}{32} = \frac{5}{8}$

$\frac{15}{24} = \frac{5}{8}$

$\frac{25}{40} = \frac{5}{8}$

yes, SSS