Learning Log 3.2.1 △ Similarity!

2 polygons are similar if:

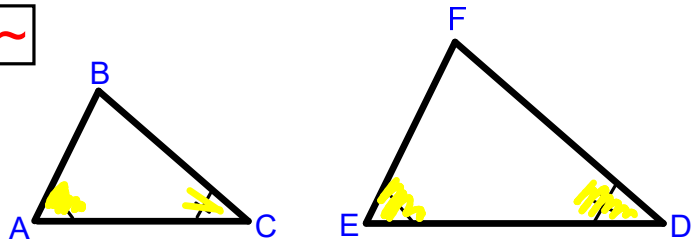
1) corresponding angles are congruent

AND

2) corresponding sides are proportional
(reduce to the same ratio)

TRIANGLES HAVE SOME SHORTCUTS!!

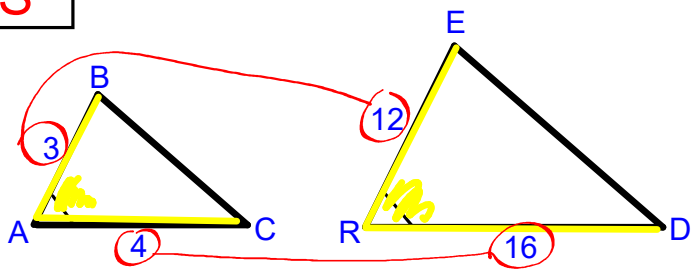
AA~



$\Delta ABC \sim \Delta EFD$ by AA~ (angle-angle similarity)

- 2 sets of corresponding angles $\cong$ (congruent)

SAS~



$\Delta ABC \sim \Delta RED$ by SAS~ (side-angle-side similarity)

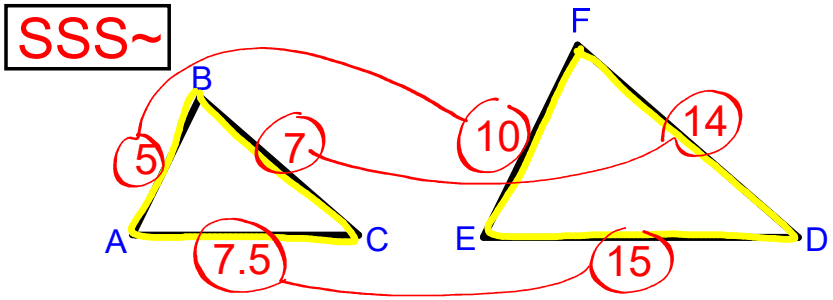
- 2 sets of corresponding sides proportional

$$\frac{3}{12} = \frac{1}{4} \text{ and } \frac{4}{16} = \frac{1}{4}$$

- the set of angles created by (or BETWEEN) those sides are $\cong$

Learning Log 3.2.4

ANOTHER TRIANGLE SHORTCUT!!

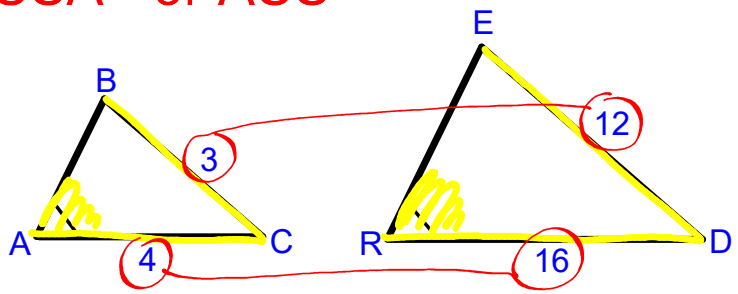


$\Delta ABC \sim \Delta EFD$ by SSS~ (side-side-side similarity)

- 3 sets of corresponding sides proportional

NO! NO! NO! NEVER EVER SAY!

SSA~ or ASS~



ΔABC and ΔRED are NOT SIMILAR!

- The pair of congruent corresponding angles is NOT between the pairs of proportional corresponding sides
- SSA and ASS are not valid reasons for ~
- THERE IS NO ASS IN GEOMETRY. EVER!