

8.4 Similar Triangles

for two similar triangles

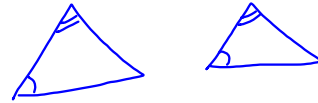
$$\triangle ABC \sim \triangle DEF$$

$$\angle A \cong \angle D, \angle B \cong \angle E, \angle C \cong \angle F$$

$$\frac{AB}{DE} = \frac{BC}{EF} = \frac{AC}{DF}$$

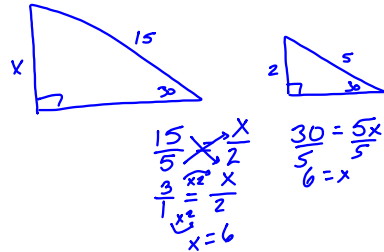
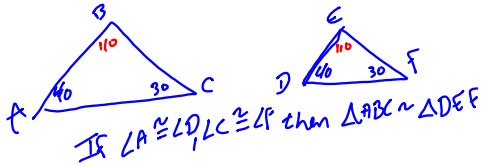
When Congruent
 \hookrightarrow ASA, AAS, SSS, SAS

AA similarity



AA Similarity

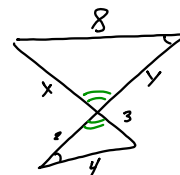
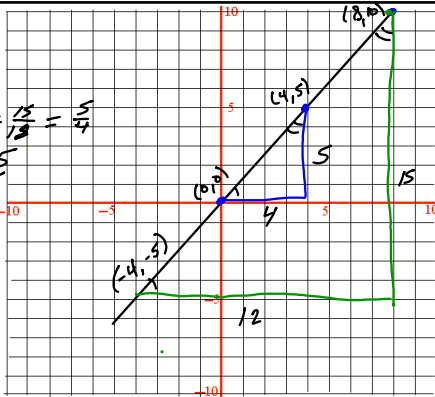
IF two angles of one triangle are congruent to two angles of another triangle then the triangles are similar



$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$= \frac{10 - (-5)}{8 - (-4)} = \frac{15}{12} = \frac{5}{4}$$

$$= \frac{5 - 0}{4 - 0} = \frac{5}{4}$$



triangles ~

$$\frac{8}{4} = \frac{x}{3} \quad x = 6$$

$$\frac{y}{2} = \frac{8}{4} \quad y = 4$$

F483-485
2-48 even