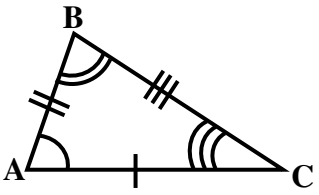
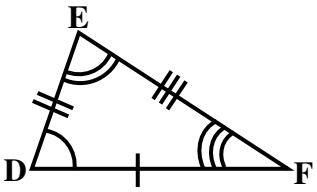
Geometry Note-Taking Guide **Name:_____**

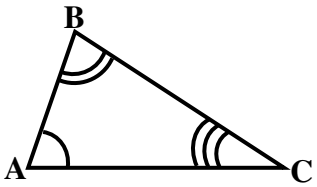
Period:____

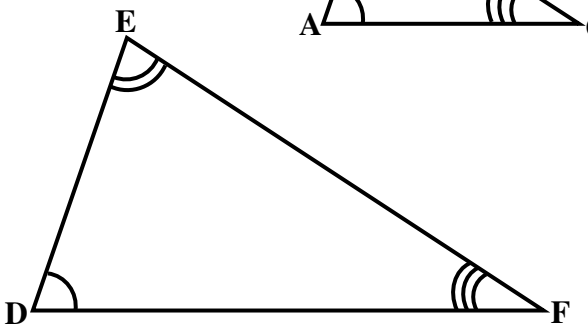
Section 6.6– Congruence and Similarity: What's the difference?

Congruence **Symbol:** ≅	**Similarity** **Symbol:** ~
$\Delta ABC \cong \Delta DEF$	$\Delta ABC \sim \Delta DEF$
Angles Congruent	**Sides Congruent**
$\angle A \cong \angle D$	$\overline{AB} \cong \overline{DE}$
$\angle B \cong \angle E$	$\overline{BC} \cong \overline{EF}$
$\angle C \cong \angle F$	$\overline{AC} \cong \overline{DF}$
Angles Congruent	**Sides Proportional**
$\angle A \cong \angle D$	$\frac{AB}{DE} = \frac{BC}{EF} = \frac{AC}{DF}$
$\angle B \cong \angle E$	
$\angle C \cong \angle F$	





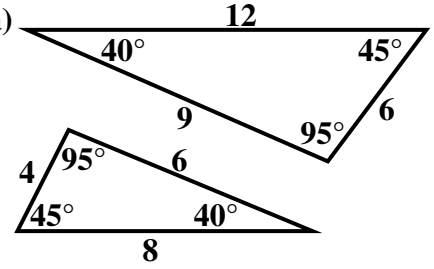




Ex 1:

Determine if the triangles are congruent, similar, both, or neither.

a)



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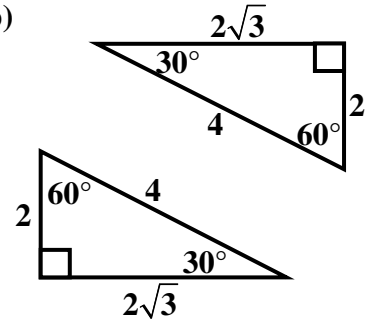
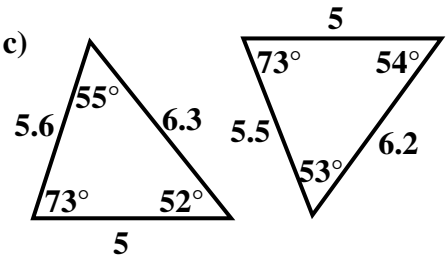


c)



If two similar triangles have a ratio of __ to __, then they are also _____.

Ex 2:
Determine if the statement is always, sometimes, or never true.

Note: Drawing diagrams can help you determine the correct answer.

a) If two triangles are similar, then they are congruent.

b) If two triangles are congruent, then they are similar.

c) If two triangles are congruent, then they are not similar.

Ex 3:

a) Which triangles must be similar?

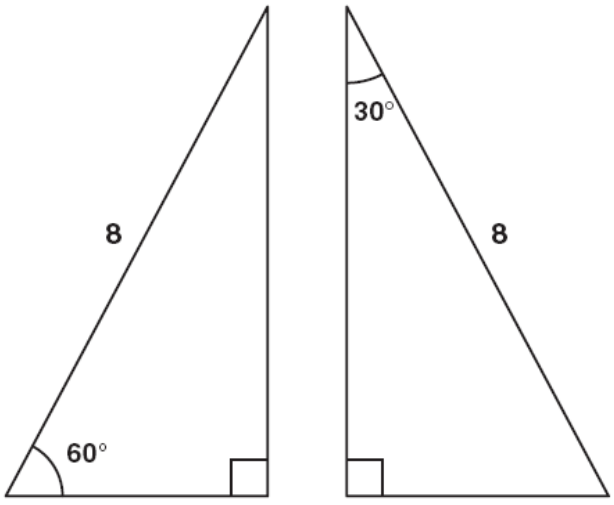
A two obtuse triangles

B two scalene triangles with congruent bases

C two right triangles

D two isosceles triangles with congruent vertex angles

b) Which of the following best describes the triangles shown below?



A both similar and congruent

B similar but not congruent

C congruent but not similar

D neither similar nor congruent