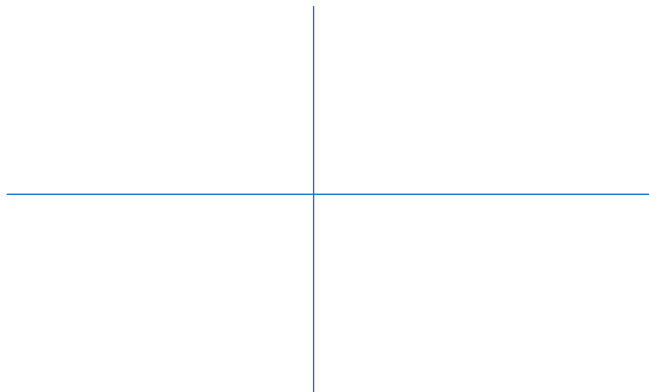


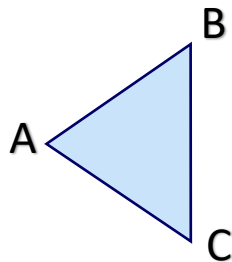
Similar and Congruent Triangles

Warmup:

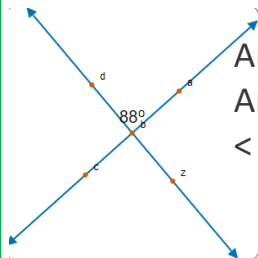
1. Draw and Identify each polygon



2. Given: Triangle ABC, $\angle B = 40$, $\angle C = 40$, and $\angle A = 100$. Classify the triangle. (The triangle may not be drawn to scale.)



3. Lines ac and dz intersect at point b. Angle abd = 88°

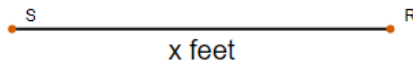
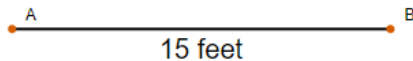


Angle abz = _____ $^\circ$

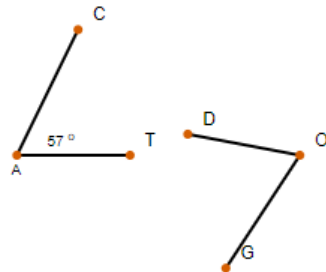
Angle cbz = _____ $^\circ$

$\angle abd \cong$ _____

4. Line segment AB is congruent to line segment SR. What is the length of SR?



5. Angle CAT is congruent to angle DOG. What is the measure of DOG?



Similar and Congruent Triangles

- I. Congruent Triangles
- II. Similar Triangles

Homeschool*Honor Roll**Learn ~ Persevere ~ Succeed*

Pre-Algebra and Geometry I

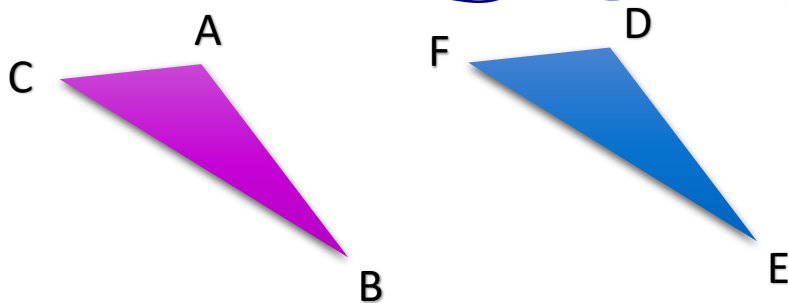
Wendy Harper

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II. Congruent

congruent: _____ in measure.

The symbol for congruent is $\cong$. (On the computer some times it looks like $\equiv$)



$$\triangle ABC \cong \triangle DEF$$

$$\angle A \cong \angle \underline{\hspace{1cm}}$$

$$\angle B \cong \angle \underline{\hspace{1cm}}$$

$$\angle C \cong \angle \underline{\hspace{1cm}}$$

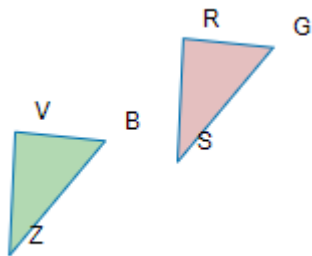
$$AB \cong \underline{\hspace{1cm}}$$

$$BC \cong \underline{\hspace{1cm}}$$

$$CA \cong \underline{\hspace{1cm}}$$

Congruent Triangles: _____ sides
and _____ angles of congruent
triangles are congruent.

$$\triangle BVZ \cong \triangle GRS.$$



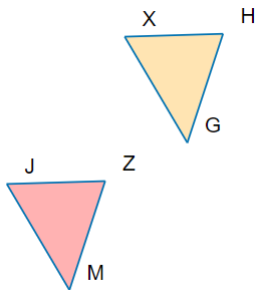
Determine the
corresponding angles of
the congruent triangles.

___ $\cong$ ___
___ $\cong$ ___
___ $\cong$ ___

Determine the
corresponding sides of the
congruent triangles.

___ $\cong$ ___
___ $\cong$ ___
___ $\cong$ ___

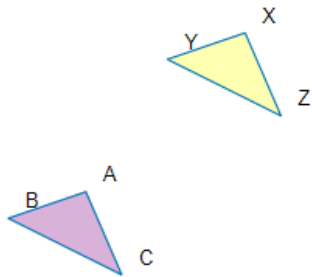
6. $\triangle ZJM \cong \triangle HXG.$



Determine the
corresponding angles of
the congruent triangles.

___ $\cong$ ___
___ $\cong$ ___
___ $\cong$ ___

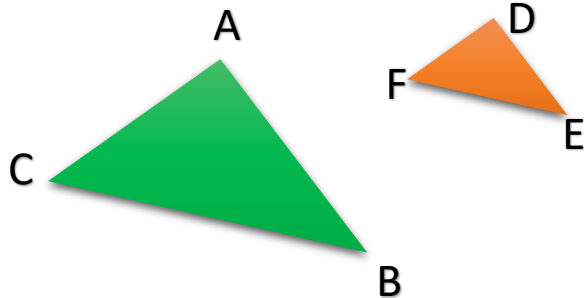
7. $\triangle ABC \cong \triangle XYZ.$



Determine the
corresponding sides of
the congruent triangles.

___ $\cong$ ___
___ $\cong$ ___
___ $\cong$ ___

II. Similar Triangles



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

$$\angle A \cong \angle \underline{\hspace{1cm}}$$

$$\angle B \cong \angle \underline{\hspace{1cm}}$$

$$\angle C \cong \angle \underline{\hspace{1cm}}$$

$$AB = 8 \text{ feet}$$

$$BC = 12 \text{ feet}$$

$$AC = 6 \text{ feet}$$

$$DF = 3 \text{ feet}$$

$$DE = \underline{\hspace{1cm}} \text{ feet}$$

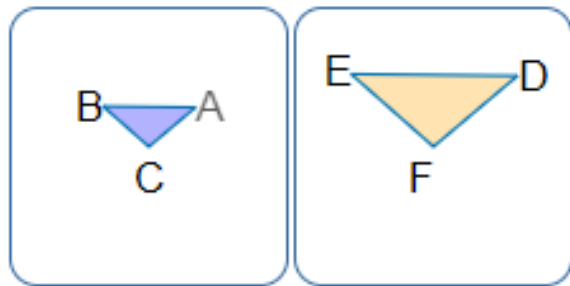
$$EF = \underline{\hspace{1cm}} \text{ feet}$$

Similar Triangles: The corresponding angles of similar triangles are _____ and corresponding sides are _____.

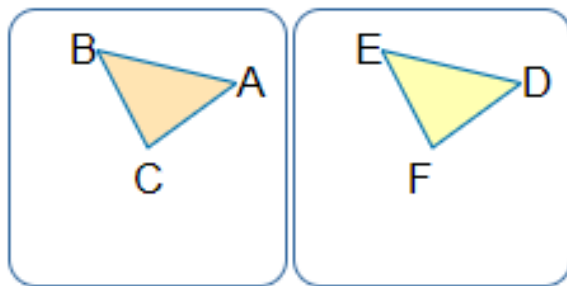
The symbol used for similar is $\sim$



Are the triangles similar or congruent?



Are the triangles similar or congruent?



10. Determine if the triangles are similar or congruent, then give the definition of each.

