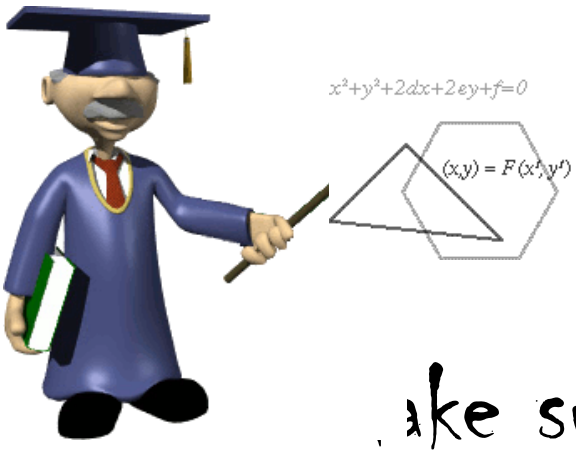


Good Morning!

ake sure ur rdy2go

when the bell rings!

(5) $6x^2 + 10x = 5$ NOT in std form

$-5 \quad -5$

$6x^2 + 10x - 5 = 0$

a b c

$a = 6$

$b = 10$

$c = -5$

$$X = \frac{-b \pm \sqrt{(b)^2 - 4ac}}{2a}$$

$bc = ad$ cross mult

$\left(\frac{b}{a}\right) = \left(\frac{d}{c}\right)$ flip

$\frac{d}{b} = \frac{c}{a}$ Swap

$\frac{a+b}{b} = \frac{c+d}{d}$ Add denom.

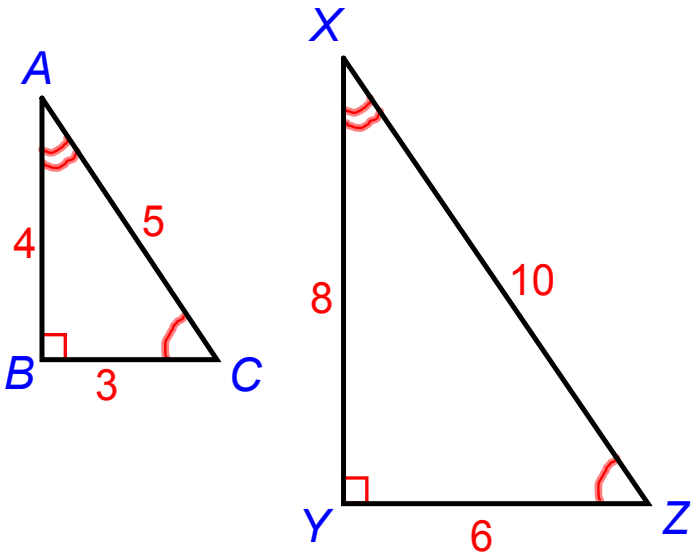
$A = \frac{1}{2} a p$

$a = 7\sqrt{3}$

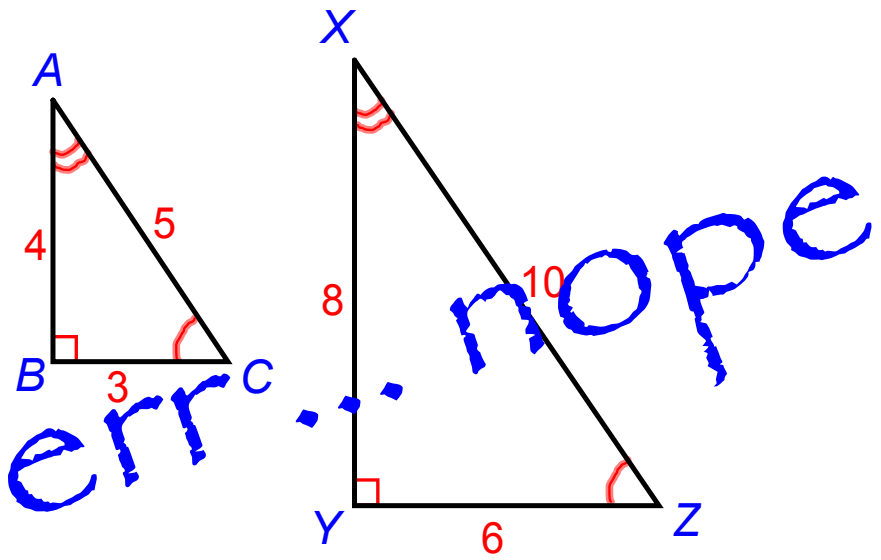
$p = 36$

$\frac{1}{2} \cdot 7\sqrt{3} \cdot 36$

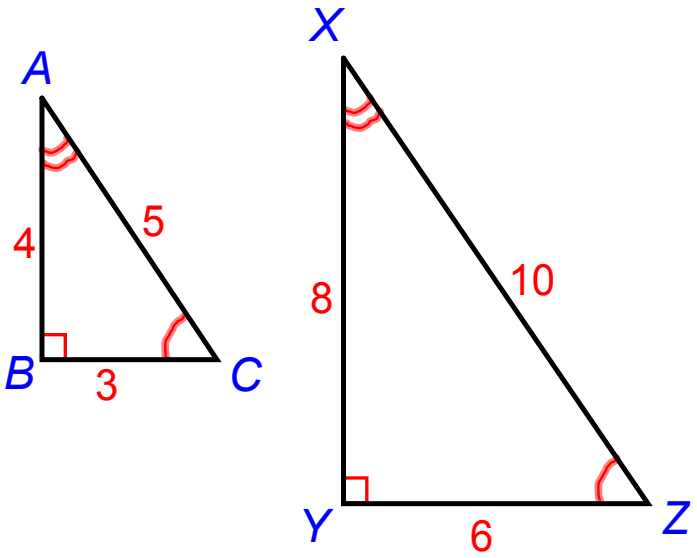
Can we say $\Delta ABC \cong \Delta XYZ$ by AAA?



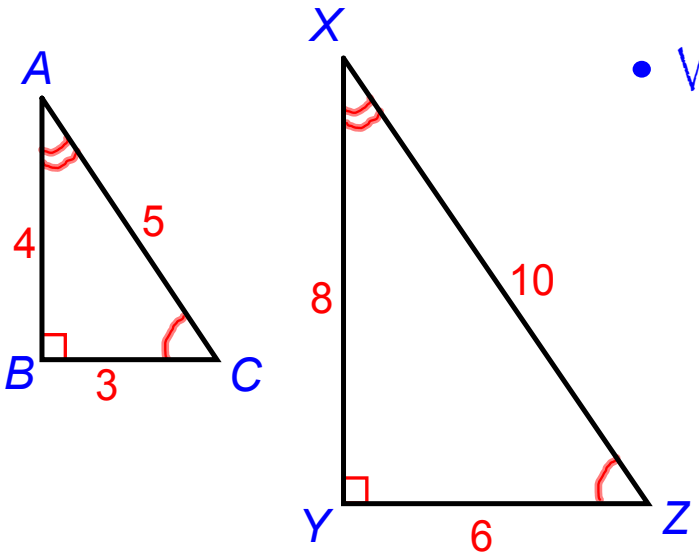
Can we say $\Delta ABC \cong \Delta XYZ$ by AAA?



What can we say about these Δ's?

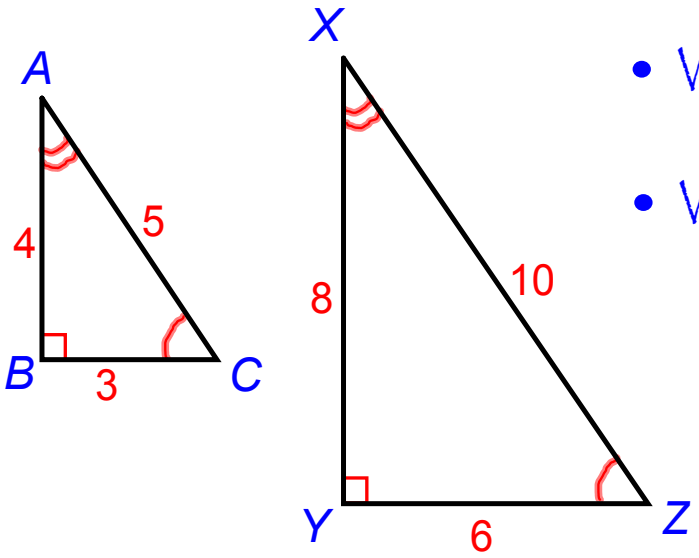


What can we say about these Δ's?



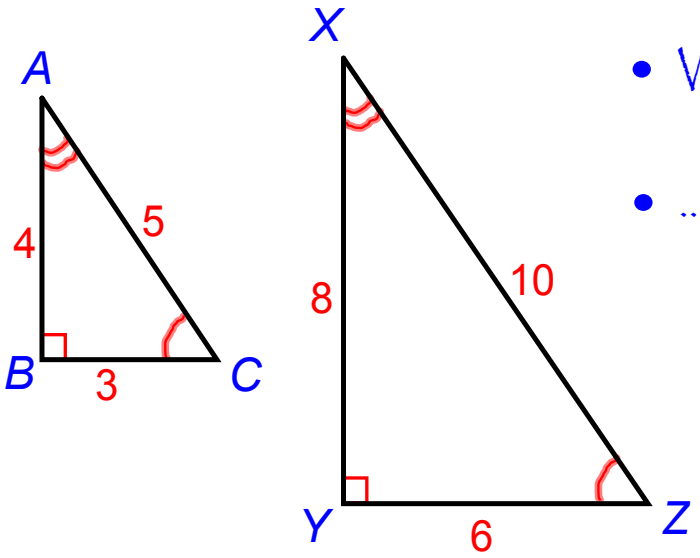
- We do have AAA...

What can we say about these Δ's?



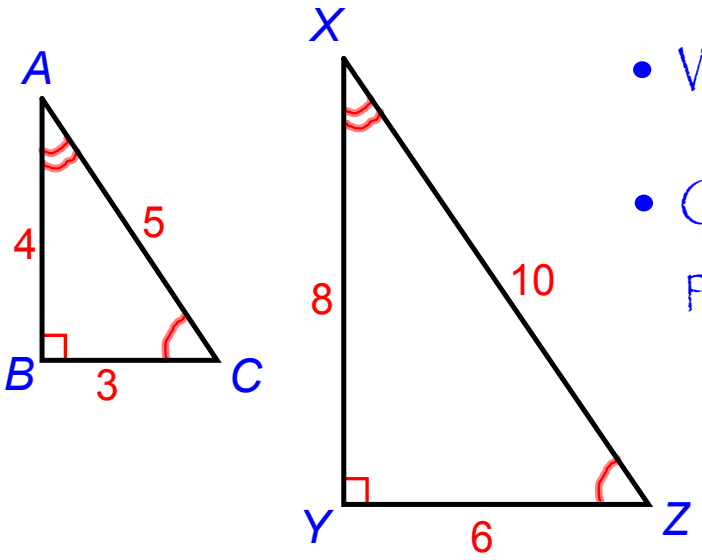
- We do have AAA...
- What about the sides?

What can we say about these Δ's?



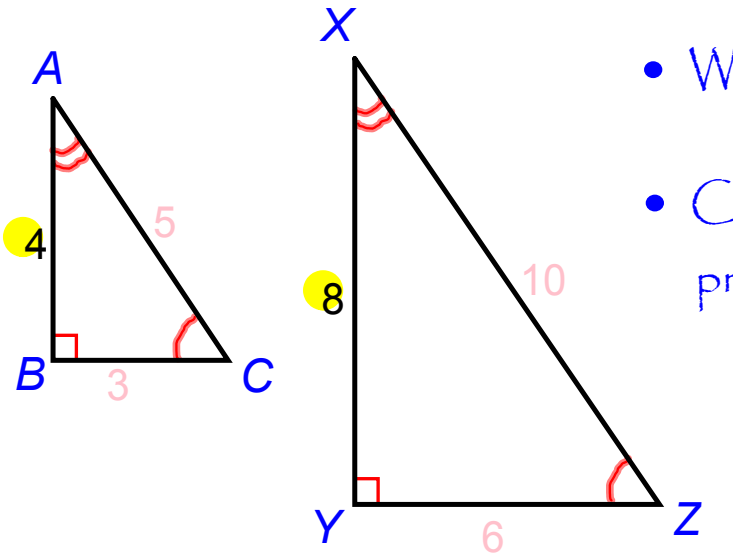
- We do have AAA...
- ...corresponding sides?

What can we say about these Δ's?



- We do have AAA...
- Corresponding sides are proportional!

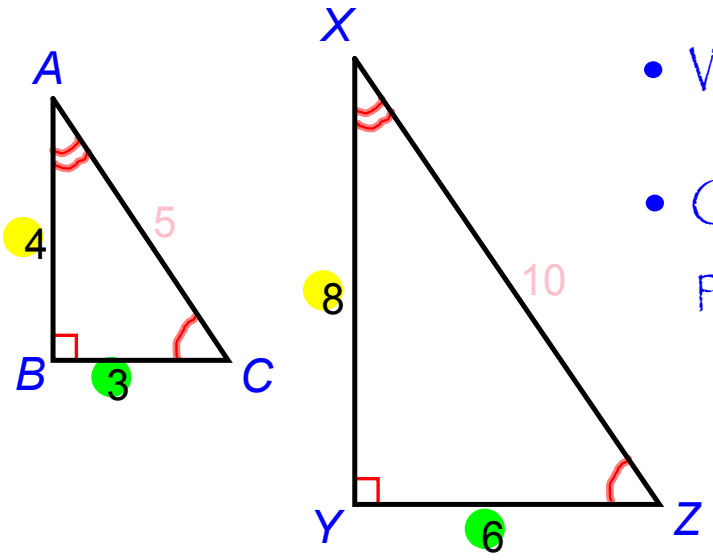
What can we say about these Δ's?



- We do have AAA...
- Corresponding sides are proportional!

$$\frac{4}{8}$$

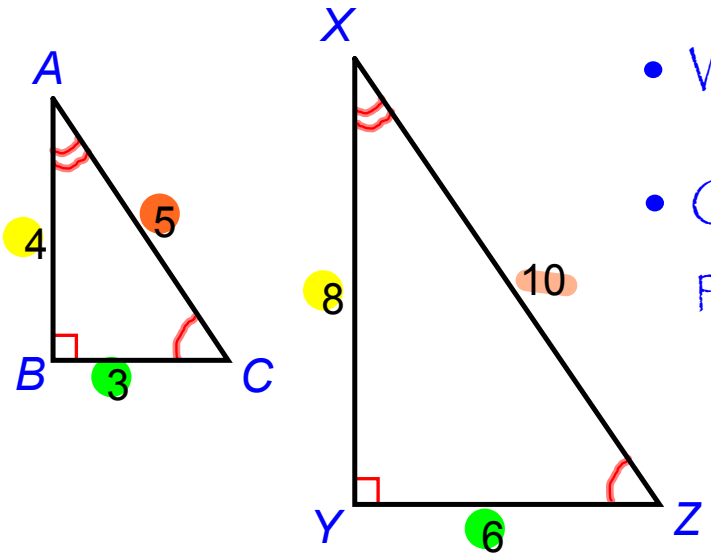
What can we say about these Δ's?



- We do have AAA...
- Corresponding sides are proportional!

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

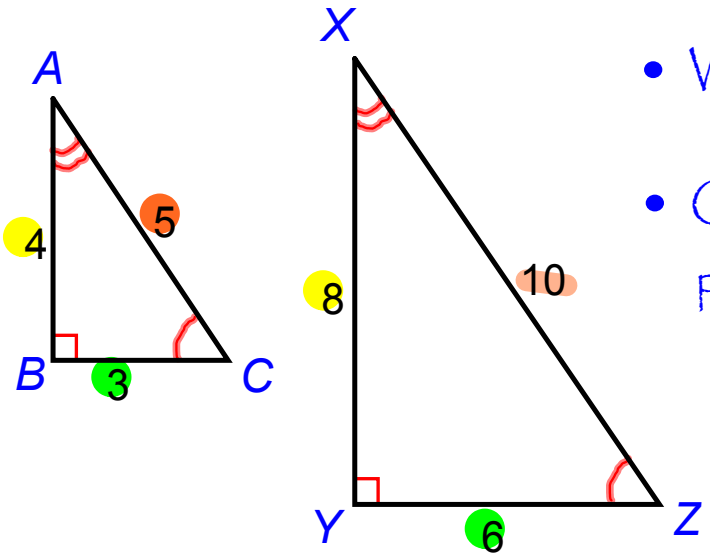
What can we say about these Δ's?



- We do have AAA...
- Corresponding sides are proportional!

$$\frac{4}{8} = \frac{3}{6} = \frac{5}{10}$$

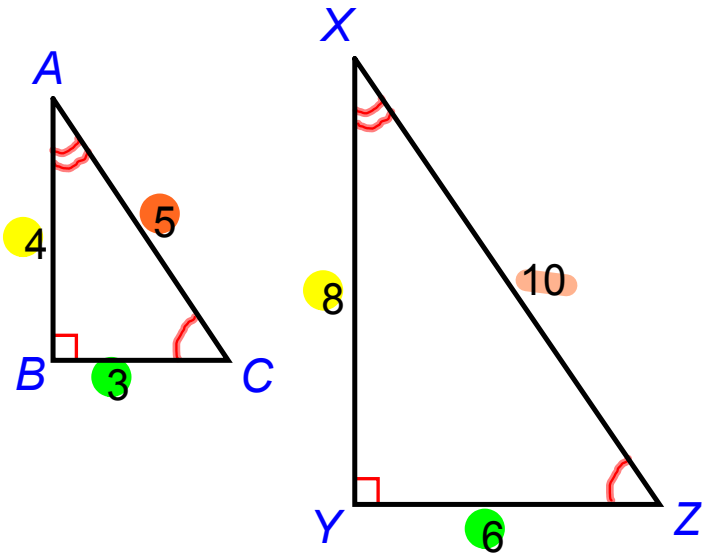
What can we say about these Δ's?



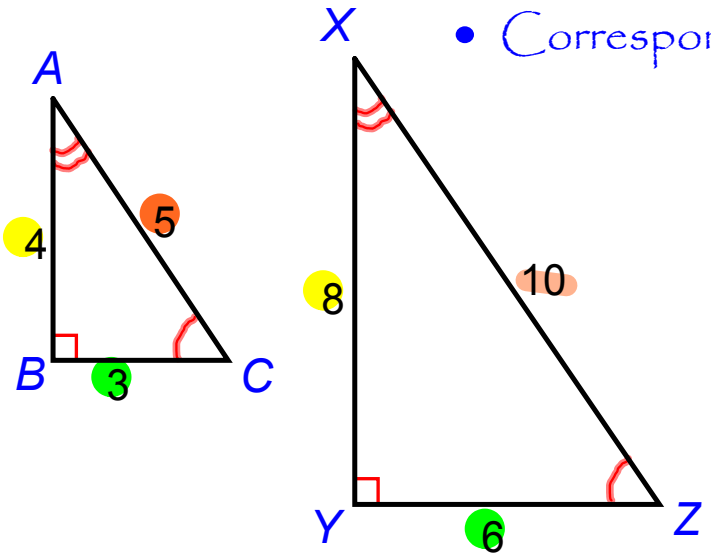
- We do have AAA...
- Corresponding sides are proportional!

$$\frac{4}{8} = \frac{3}{6} = \frac{5}{10} = \frac{1}{2}$$

Similar Polygons

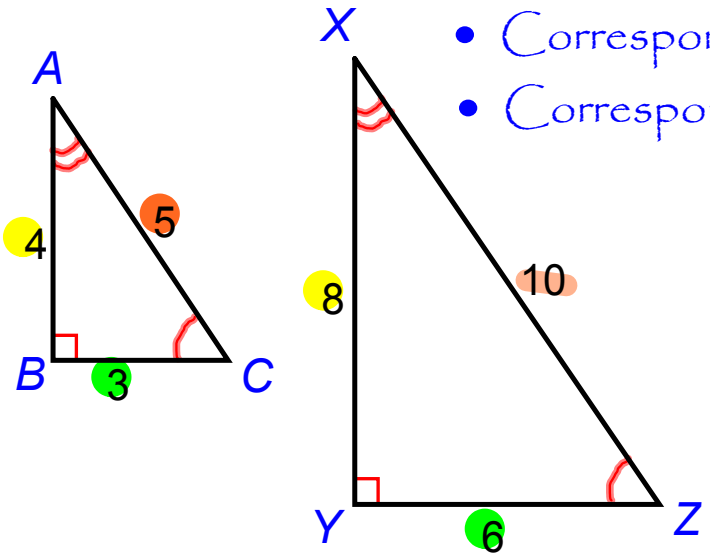


Similar Polygons



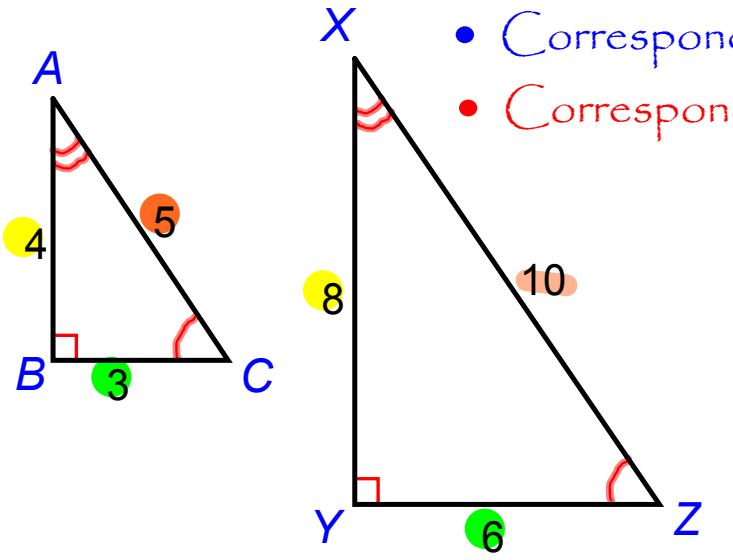
- Corresponding ∠'s are ≅ (AAA)

Similar Polygons



- Corresponding ∠'s are ≅ (AAA)
- Corresponding sides are proportional!

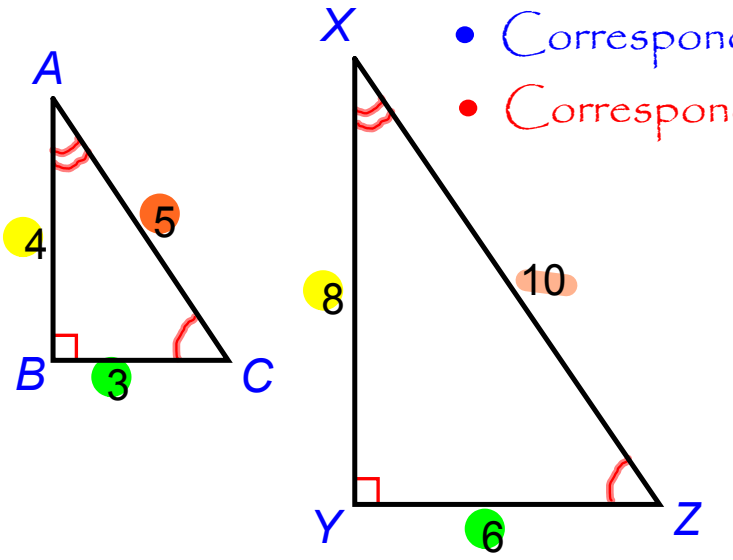
Similar Polygons



- Corresponding ∠'s are ≅ (AAA)
- Corresponding sides are proportional!

** Ratios of the lengths of all corresponding sides are equal **

Similar Polygons

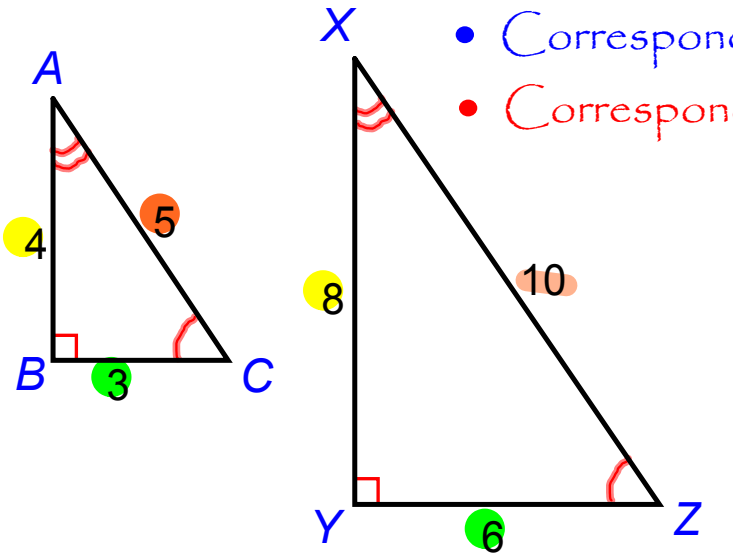


- Corresponding ∠'s are ≅ (AAA)
- Corresponding sides are proportional!

** Ratios of the lengths of all corresponding sides are equal **

$$\frac{AB}{?}$$

Similar Polygons



- Corresponding ∠'s are ≅ (AAA)
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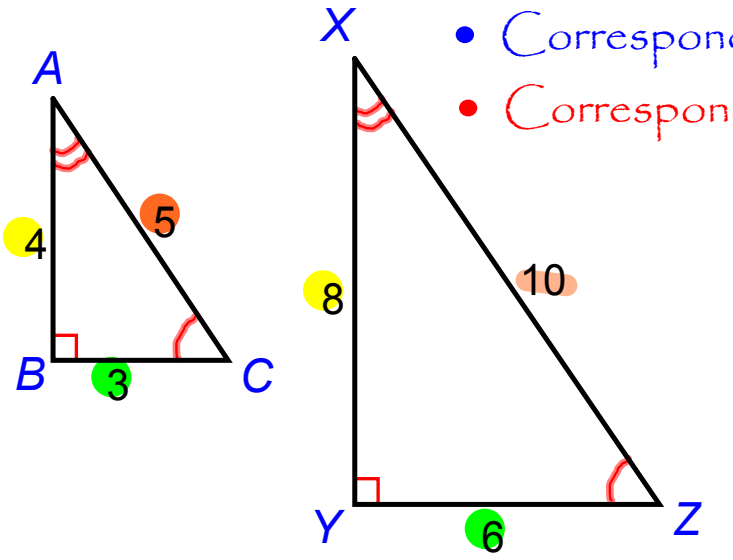
** Ratios of the lengths of all corresponding sides are equal **

$$\frac{AB}{XY}$$

Similar Polygons

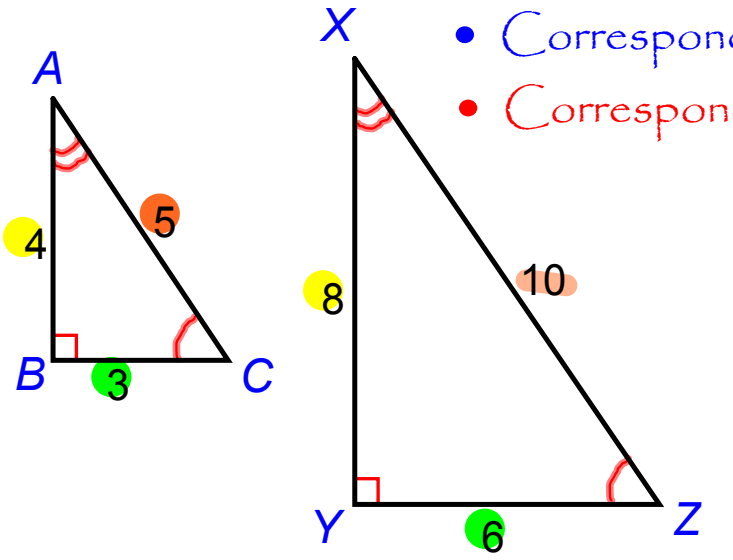


- Corresponding ∠'s are ≅ (AAA)
- Corresponding sides are proportional!

** Ratios of the lengths of all corresponding sides are equal **

$$\frac{AB}{XY}=\frac{BC}{?}=\frac{AC}{?}=\frac{1}{?}$$

Similar Polygons

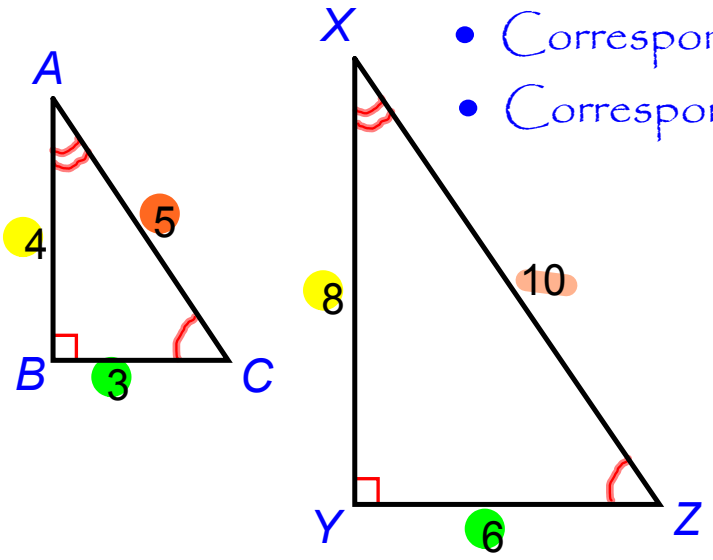


- Corresponding ∠'s are ≅ (AAA)
- Corresponding sides are proportional!

** Ratios of the lengths of all corresponding sides are equal **

$$\frac{AB}{XY}=\frac{BC}{YZ}=\frac{AC}{XZ}=\frac{1}{2}$$

Similar Polygons

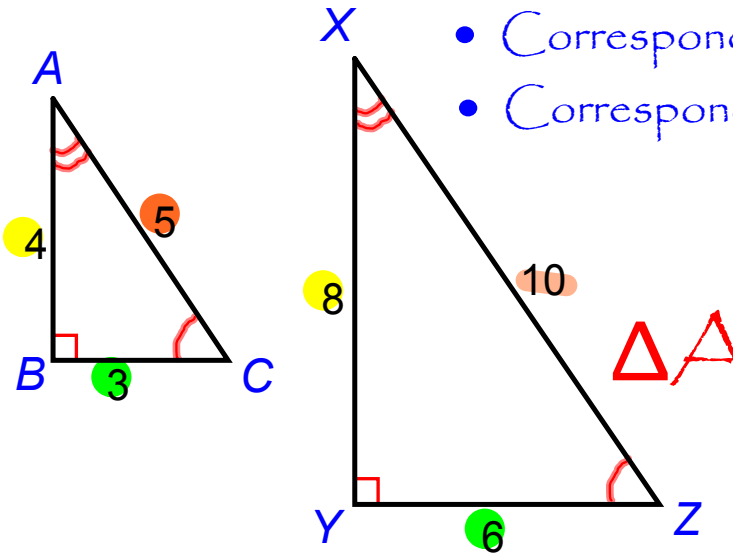


- Corresponding ∠'s are ≅ (AAA)
- Corresponding sides are proportional!

** Ratios of the lengths of all corresponding sides are equal **

$$\frac{AB}{XY}=\frac{BC}{YZ}=\frac{AC}{XZ}=\frac{1}{2}$$ ← Similarity Ratio

Similar Polygons



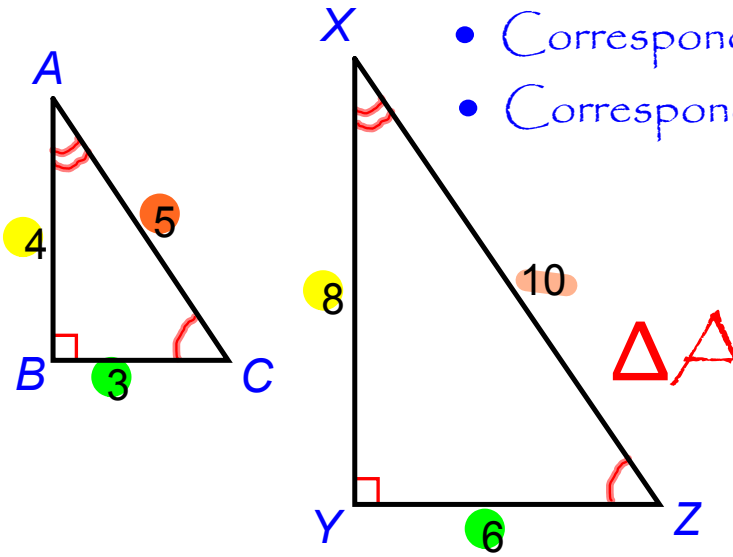
- Corresponding ∠'s are ≅ (AAA)
- Corresponding sides are proportional!

$\Delta ABC \sim \Delta XYZ$

** Ratios of the lengths of all corresponding sides are equal **

$$\frac{AB}{XY}=\frac{BC}{YZ}=\frac{AC}{XZ}=\frac{1}{2}$$ ← Similarity Ratio

Similar Polygons



- Corresponding ∠'s are ≅ (AAA)
- Corresponding sides are proportional!

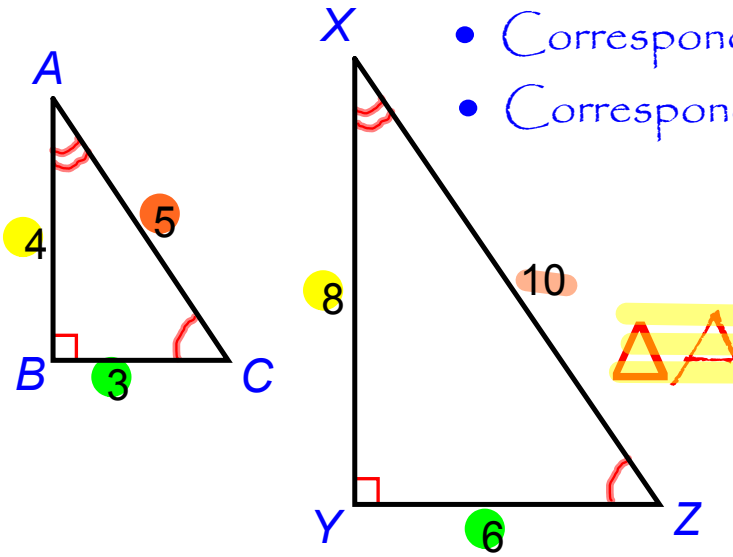
similarity symbol

$\Delta ABC \sim \Delta XYZ$

** Ratios of the lengths of all corresponding sides are equal **

$\frac{AB}{XY} = \frac{BC}{YZ} = \frac{AC}{XZ} = \frac{1}{2}$ ← Similarity Ratio

Similar Polygons



- Corresponding ∠'s are ≅ (AAA)
- Corresponding sides are proportional!

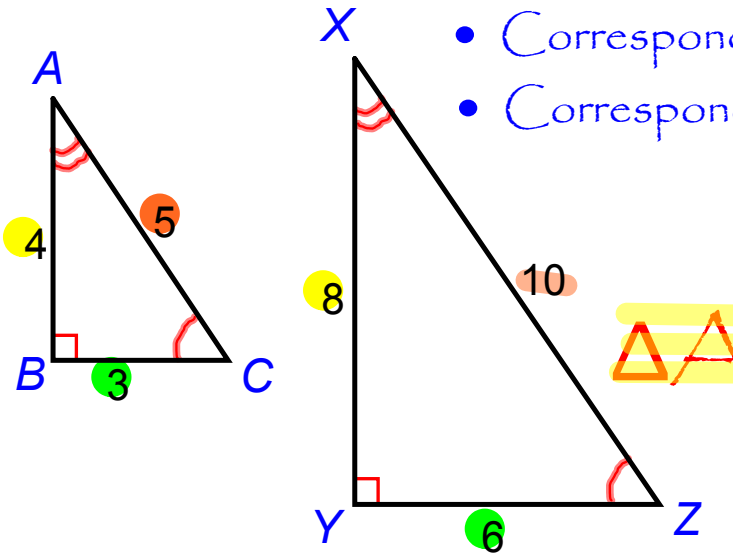
$\Delta ABC \sim \Delta XYZ$

Similarity Statement

** Ratios of the lengths of all corresponding sides are equal **

$$\frac{AB}{XY}=\frac{BC}{YZ}=\frac{AC}{XZ}=\frac{1}{2}$$ ← Similarity Ratio

Similar Polygons



- Corresponding ∠'s are ≅ (AAA)
- Corresponding sides are proportional!

$\Delta ABC \sim \Delta XYZ$

Similarity Statement

** Ratios of the lengths of all corresponding sides are equal **

$$\frac{AB}{XY}=\frac{BC}{YZ}=\frac{AC}{XZ}=\frac{1}{2}$$ ← Similarity Ratio

What would a similarity ratio of 1:1 mean?

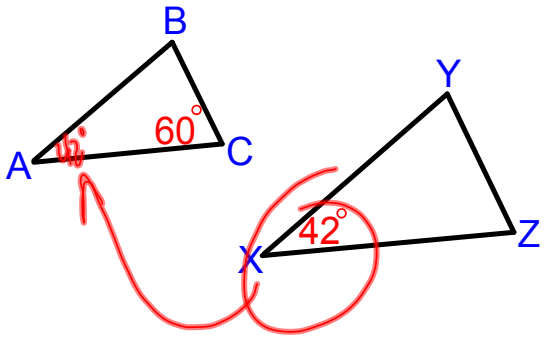
What would a similarity ratio of 1:1 mean?

The polygons are ≅

Ex: $\Delta ABC \sim \Delta XYZ$ ...

a) $m\angle B =$? 78°

b) $\frac{BC}{YZ} = \frac{?\ AC}{XZ}$

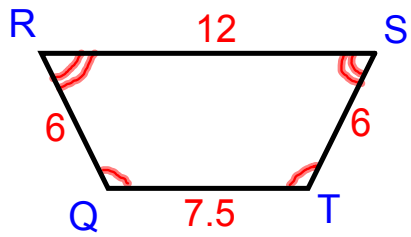


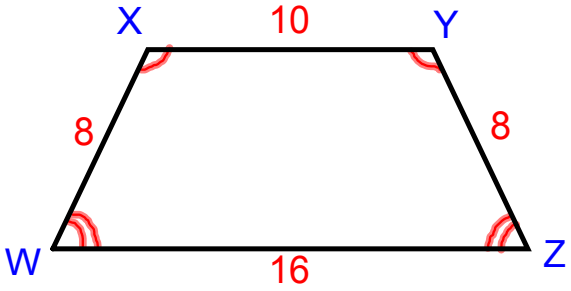
Ex: pg 425, prob #8

Are the polygons similar?

If so, give similarity statement & SR.

If not, explain.





Ex: pg 425, prob #8

Are the polygons similar?

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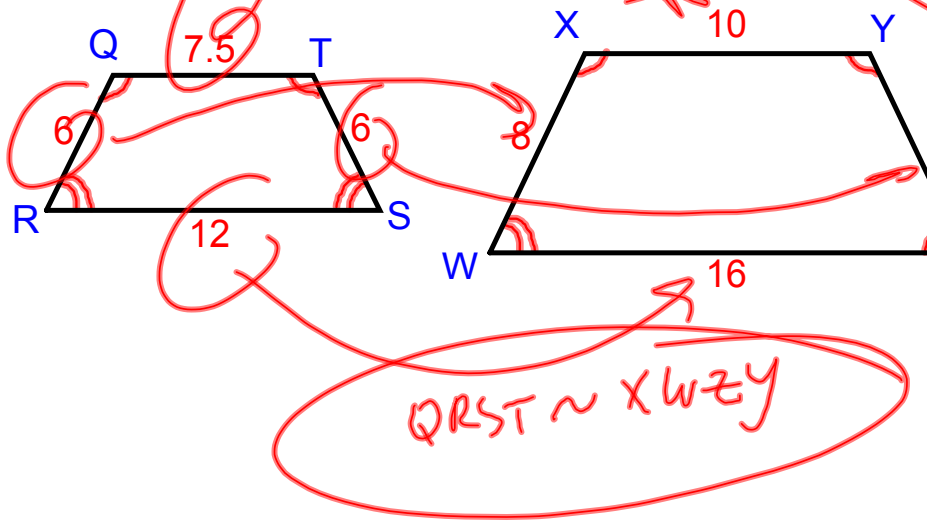


$\frac{7.5}{10} = \frac{25}{100} = \frac{3}{4}$

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

$\frac{12}{16} = \frac{3}{4}$

$QRST \sim XWZY$

Example

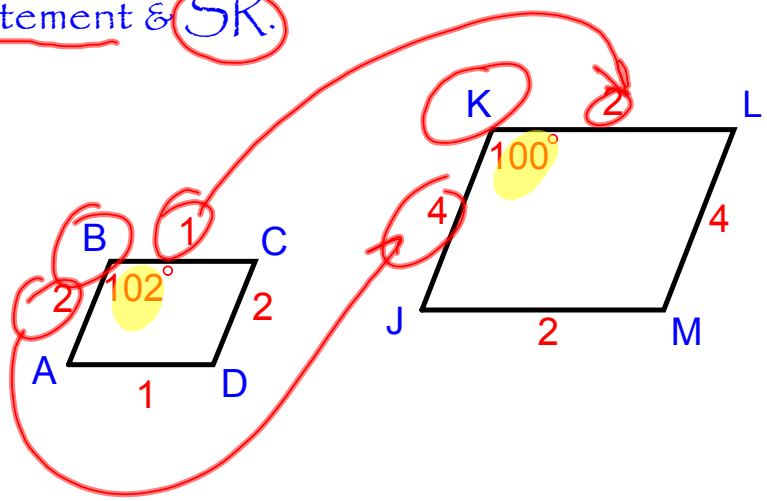
Are the parallelograms similar?

If so, give similarity statement & SR.

If not, explain.

NO

Corr ∠'s not ≅



Ex: pg 425, prob #8

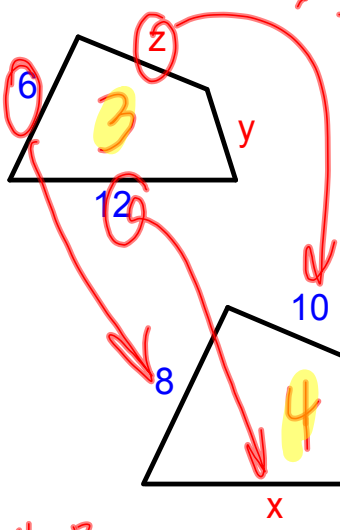
The polys are similar.

Find value of each variable.

$x = 16$

$y = 4.5$

$z = 7.5$



1st Find SR

$SR = \frac{6}{8} = \frac{3}{4}$

$\frac{z}{10} = \frac{3}{4}$ · 10

$z = 7.5$

$\frac{y}{6} = \frac{3}{4}$

$y = \frac{3 \cdot 6}{4}$

$y = 4.5$

$\frac{x}{12} = \frac{4}{3}$ · 12

$x = \frac{4 \cdot 12}{3} = 16$

L8-2 HW Problems

Pg 425 #1-16,
21-28,
31-39, 53-66