

Math 9 Notes - LG 12

Similar Triangles

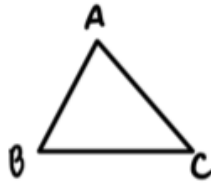
Watch: <https://youtu.be/pBMKGOe9Q4E>



Triangles

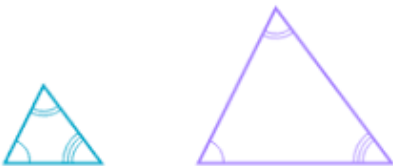


all angles add to  
 $180^\circ$



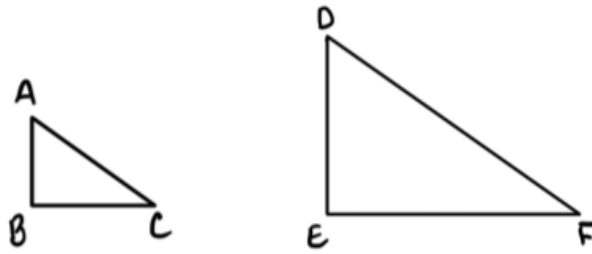
Similar Triangles

Share 2 equal angles    OR    have 2 proportional sides



Corresponding – means matching

Example:



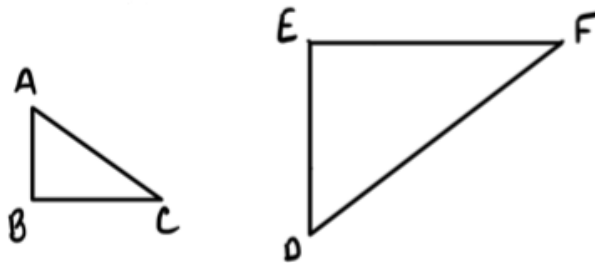
Corresponding Angles	Corresponding Sides

Cool Fact: ratios of corresponding sides are equal!

Can be written as ratios!

$$\frac{\text{small triangle}}{\text{big triangle}} \quad \text{---} = \text{---} = \text{---}$$

Orientation doesn't matter:



AND we can use ratios to calculate unknown sides!

$$\frac{\text{small triangle}}{\text{big triangle}} \quad \frac{AB}{DE} = \frac{BC}{EF} \qquad \frac{\text{small triangle}}{\text{big triangle}} \quad \frac{AB}{DE} = \frac{AC}{DF}$$

Ratios of corresponding sides are also called SCALE FACTORS:  $\frac{AB}{DE} =$