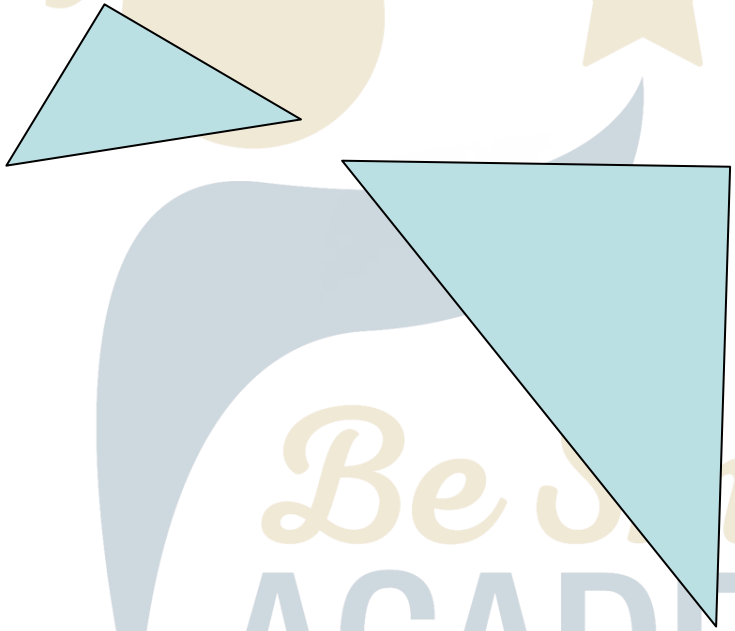
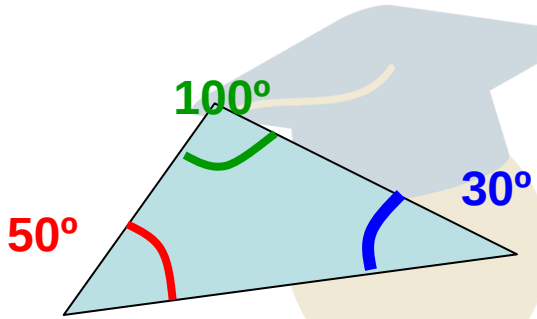
Similar Triangles



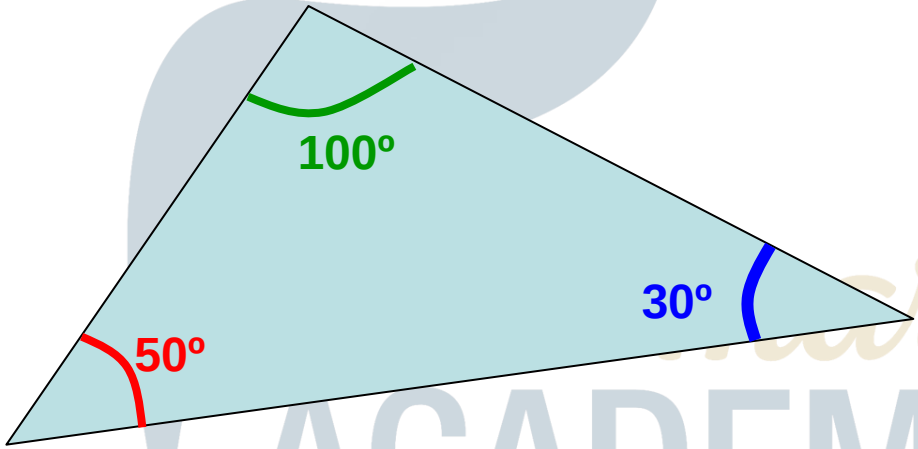
Similar shapes

- Are Enlargements of each other
- Corresponding angles are equal
- Sides are related by the same scale factor

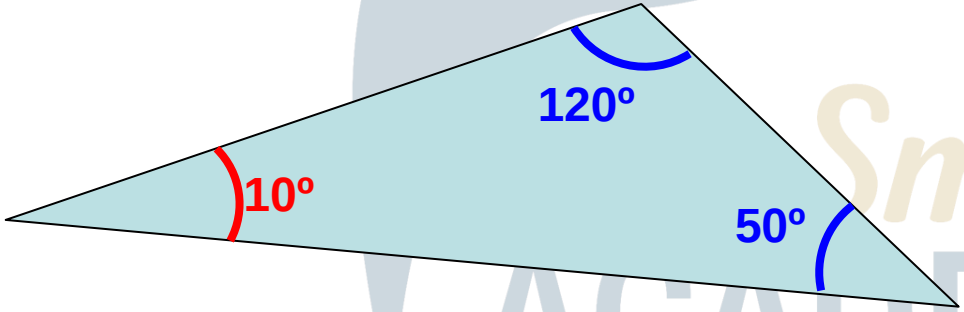
Similar Triangles



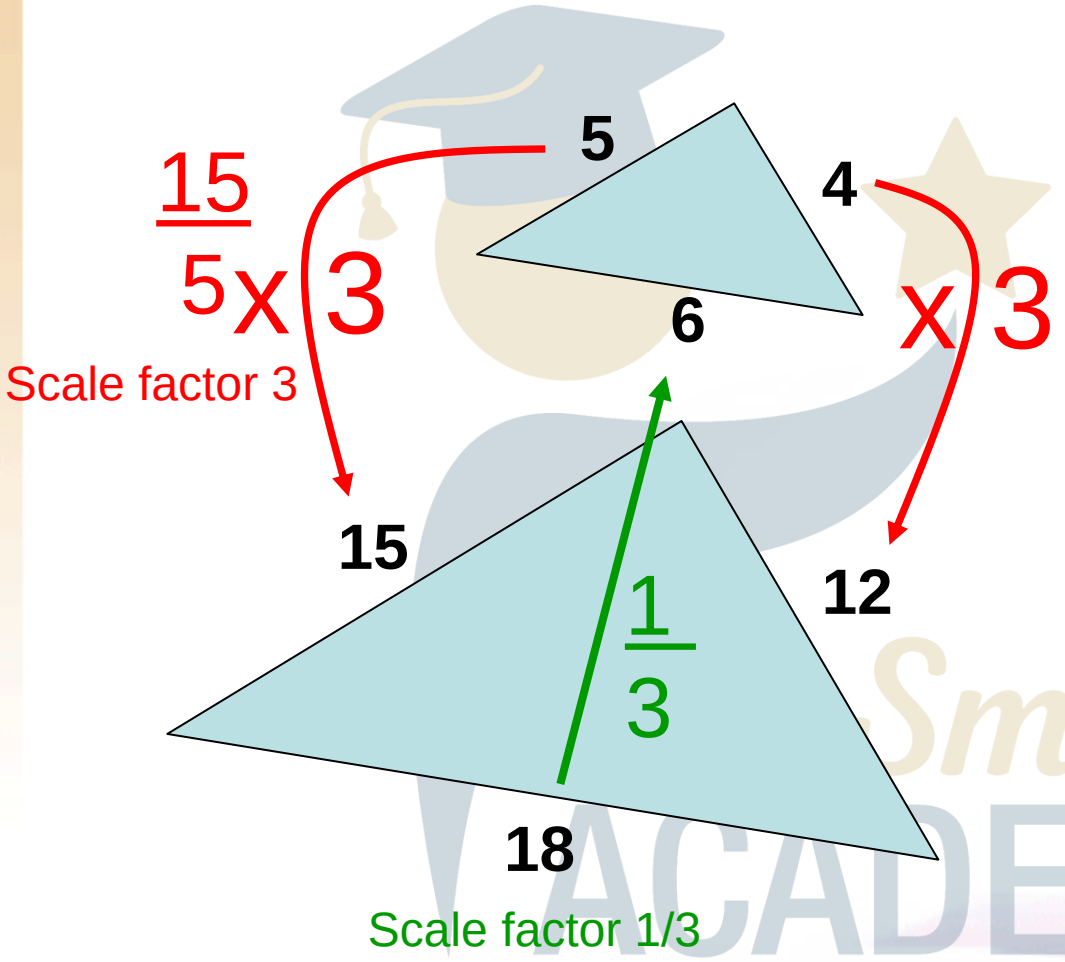
Triangles are similar if matching angles remain the same size.



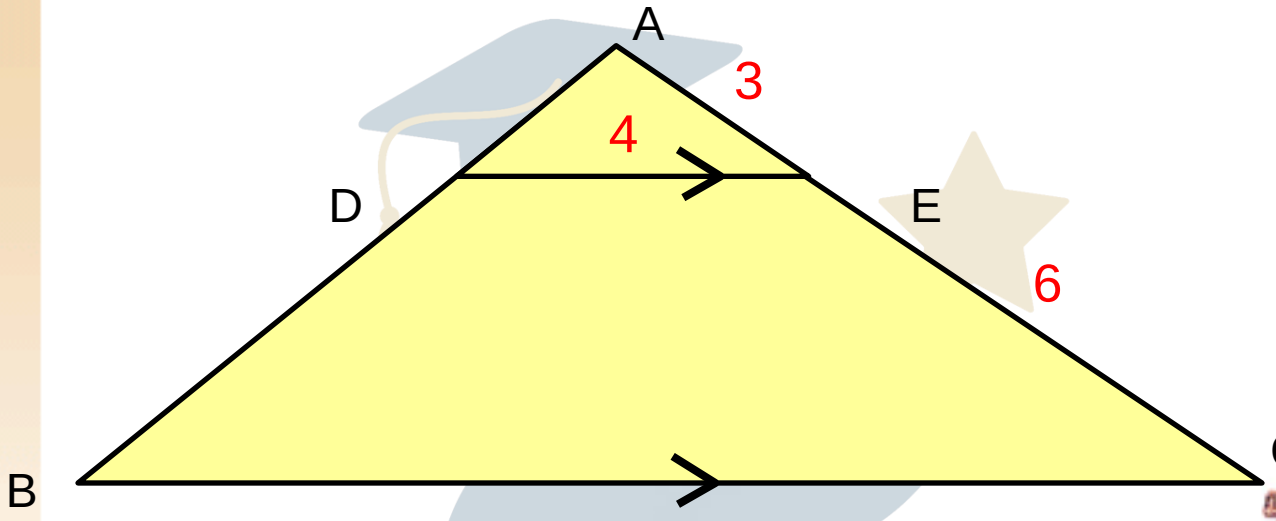
Show that these triangles are similar



To calculate a length



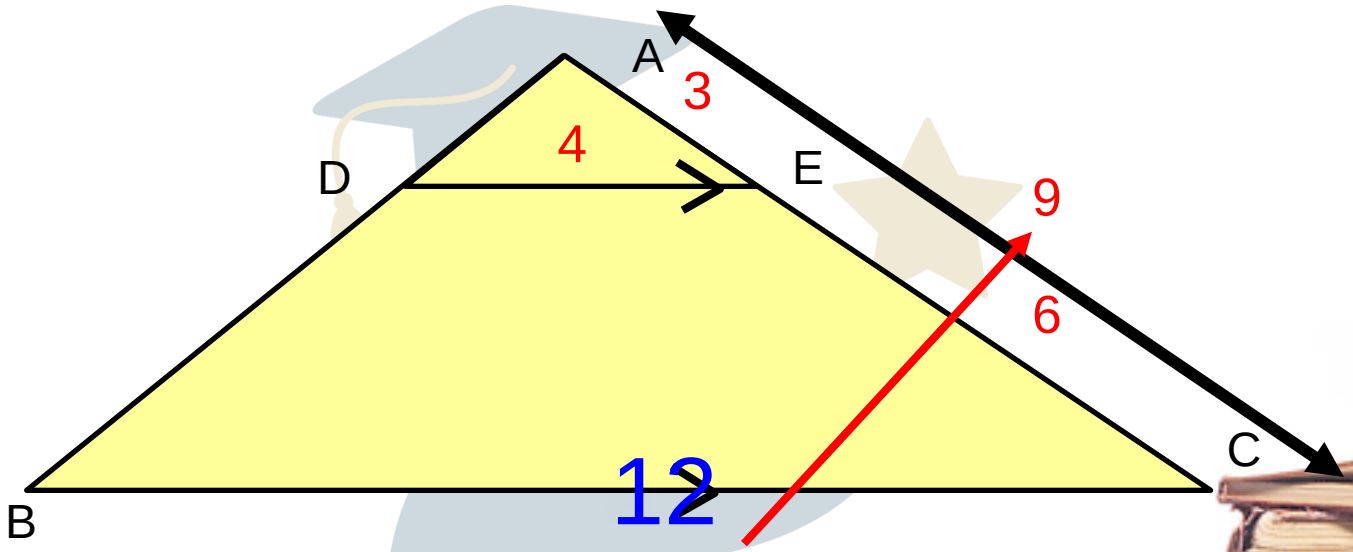
Harder example



Triangle ABC is similar to triangle ADE.
DE is parallel to BC.

Calculate the length of BC

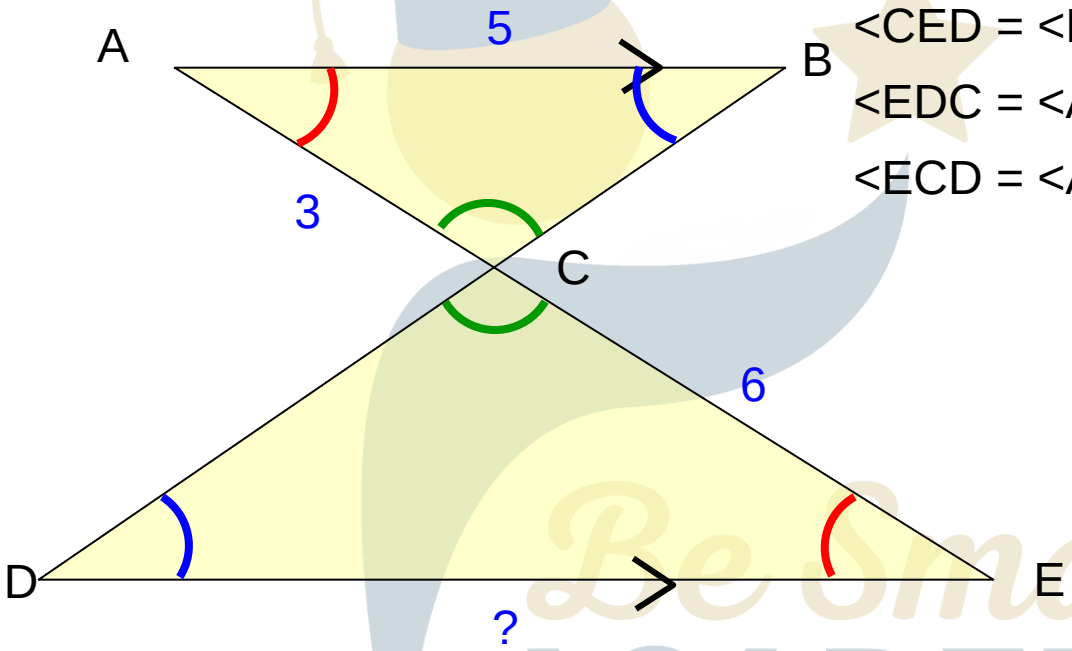
Harder example



$$\frac{9}{3} \times 3$$

...and then...

AB & DE are parallel



Explain why ABC is similar to CDE

<CED = <BAC Alternate Angles

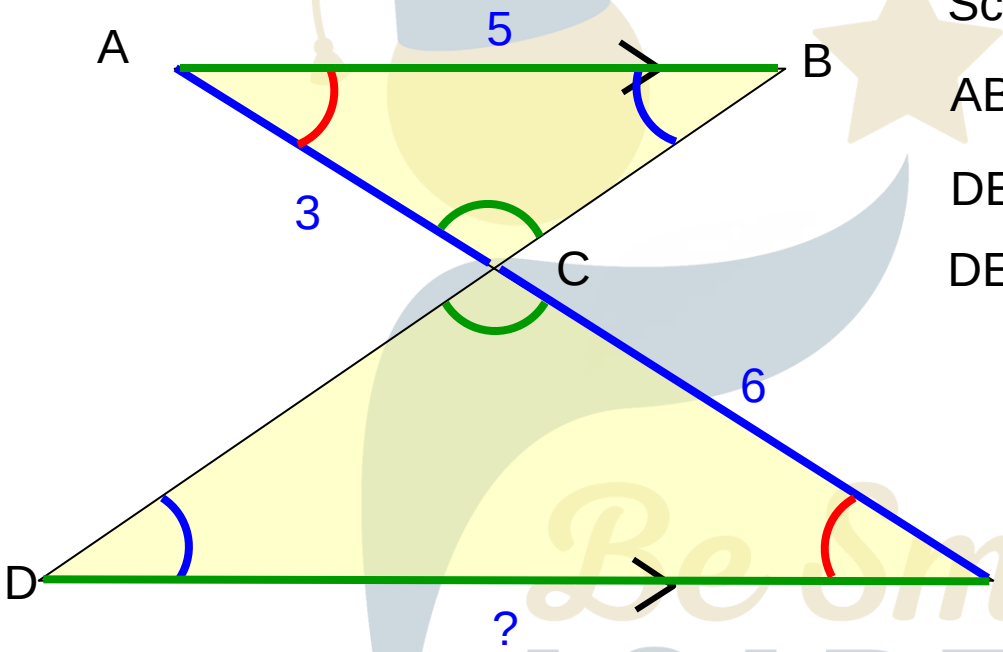
<EDC = <ABC Alternate Angles

<ECD = <ACB Vert Opp Angles

Triangle ABC is similar to Triangle CDE

...and then...

Calculate the length of DE



AC corresponds to CE

Scale Factor = 2

AB corresponds to DE

DE = 2 x AB

DE = 10cm

Summary – Similar shapes

- To calculate missing sides, we first of all need the scale factor
- We then either multiply or divide by the scale factor
- To show that 2 shapes are similar we can either show that all of the sides are connected by the scale factor or show that matching angles are the same