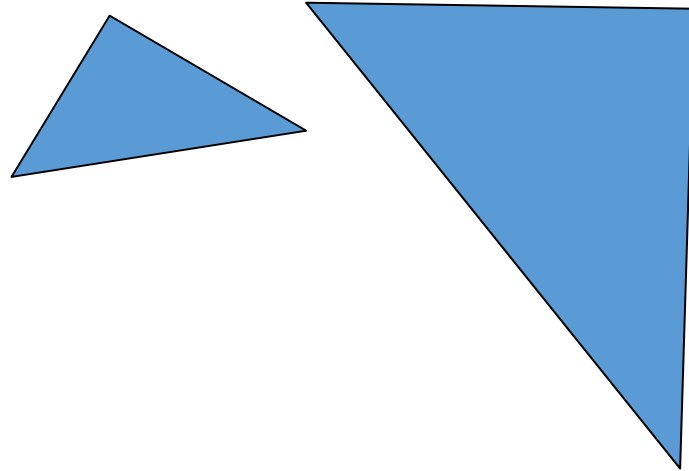




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Similar Triangles





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Similar shapes

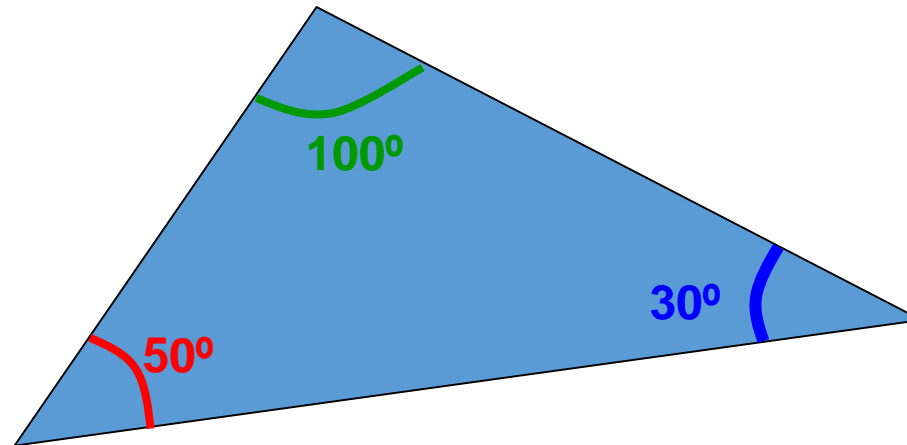
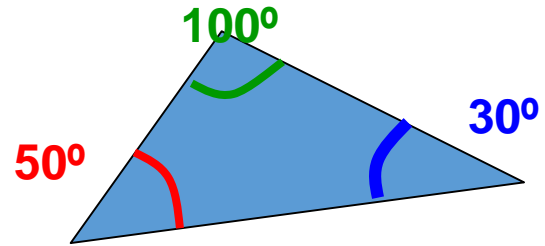
- Are Enlargements of each other
- Corresponding angles are equal
- Sides are related by the same scale factor



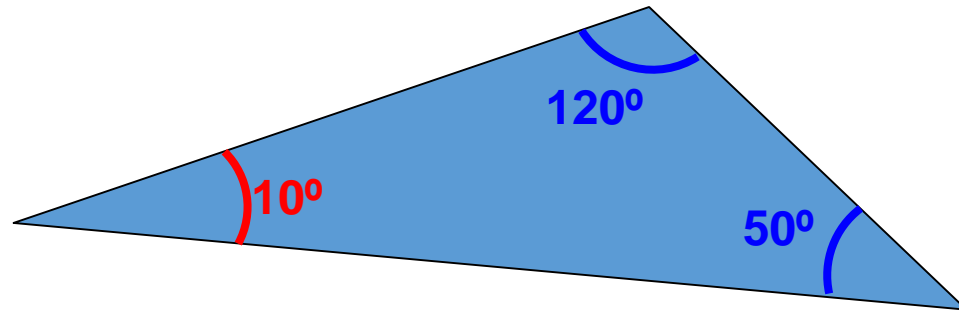
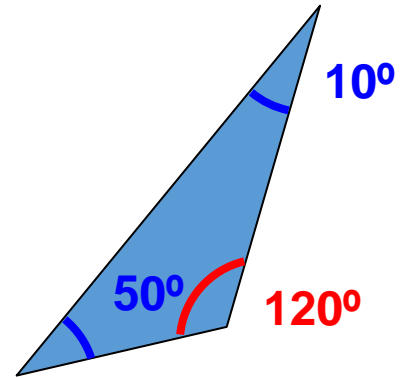


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Triangles are similar if matching angles remain the same size.



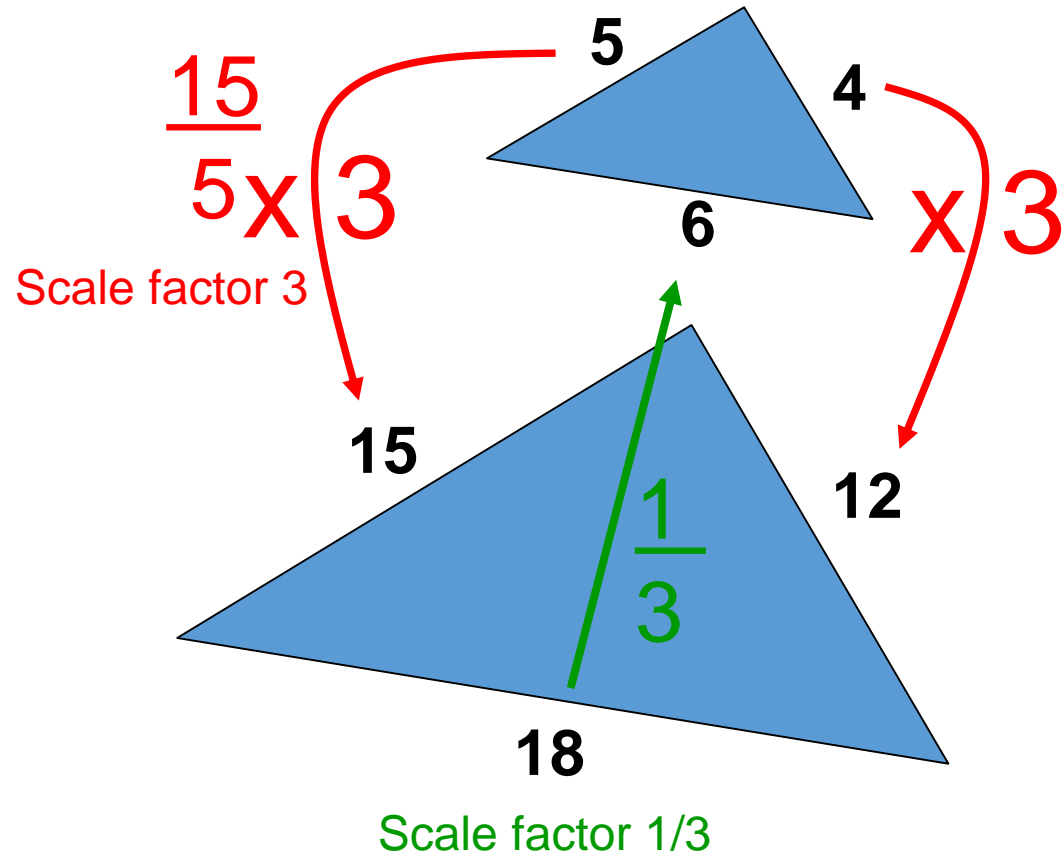
Show that these triangles are similar





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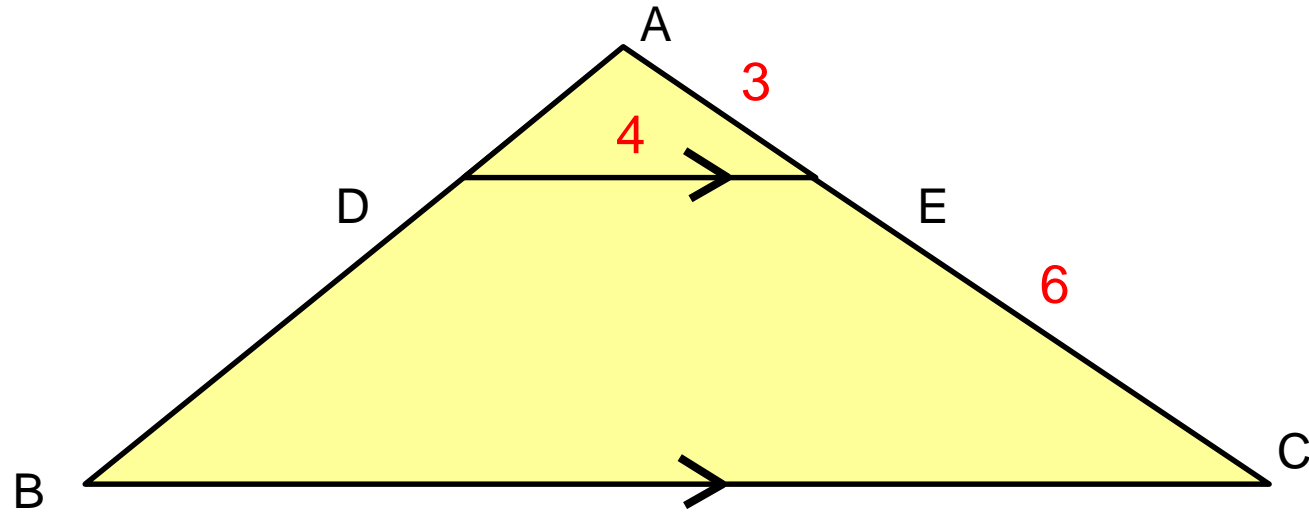
To calculate a length





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Harder example



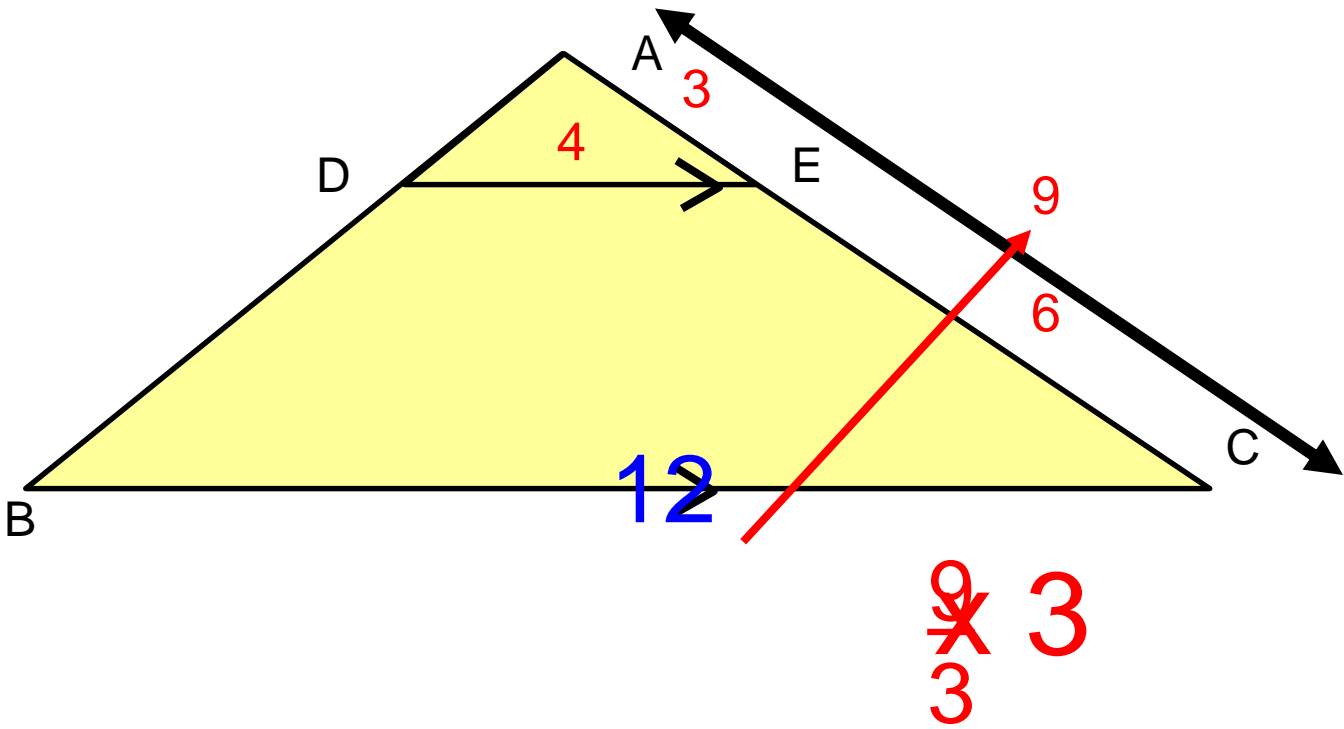
Triangle ABC is similar to triangle ADE .
 DE is parallel to BC .

Calculate the length of BC



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Harder example

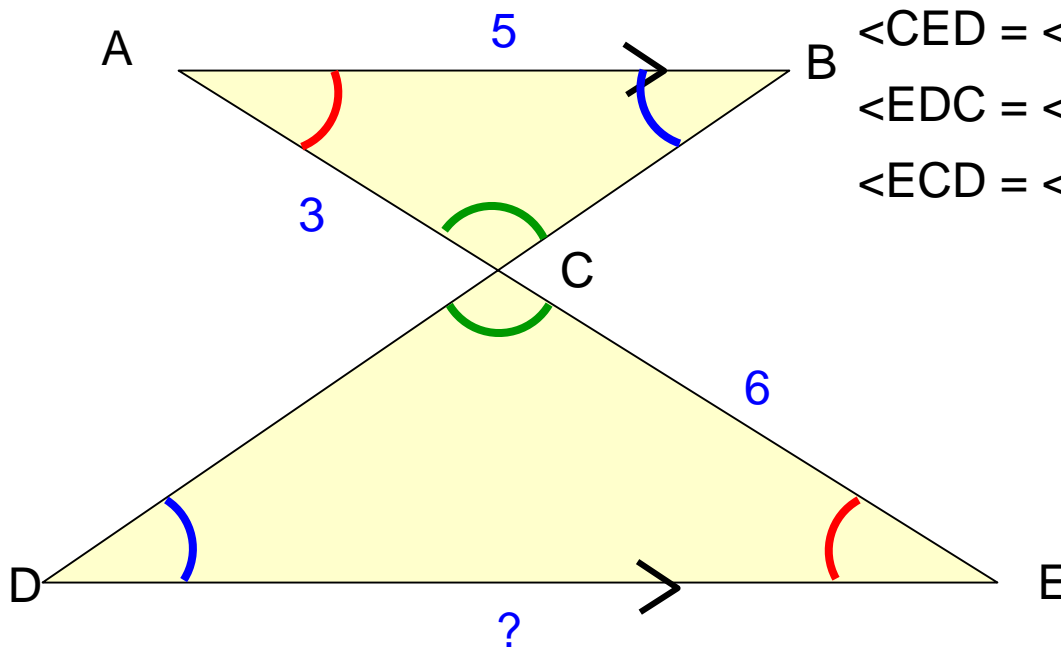




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AB & DE are parallel

Explain why ABC is similar to CDE



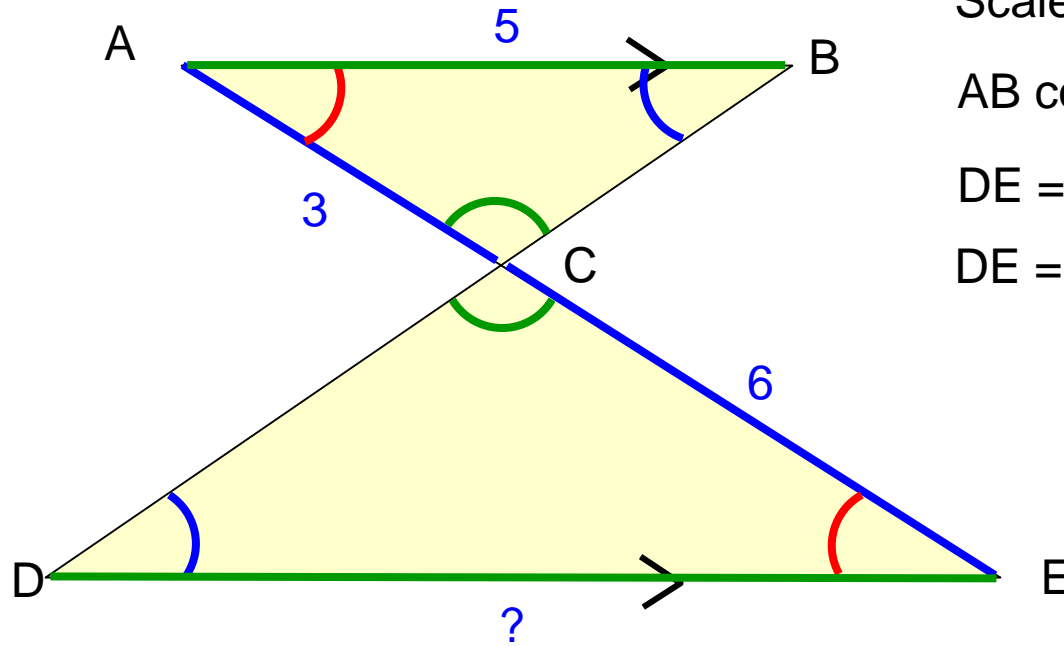
- $\angle CED = \angle BAC$ Alternate Angles
- $\angle EDC = \angle ABC$ Alternate Angles
- $\angle ECD = \angle ACB$ Vert Opp Angles

Triangle ABC is similar to Triangle CDE



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Calculate the length of DE



AC corresponds to CE

Scale Factor = 2

AB corresponds to DE

$$DE = 2 \times AB$$

$$DE = 10\text{cm}$$



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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