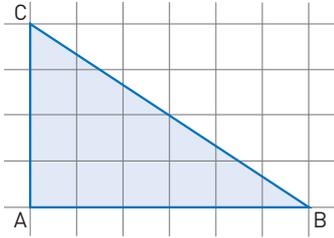


**YOU & MATHS** Different triangles Draw two right triangles that are equivalent but not congruent.

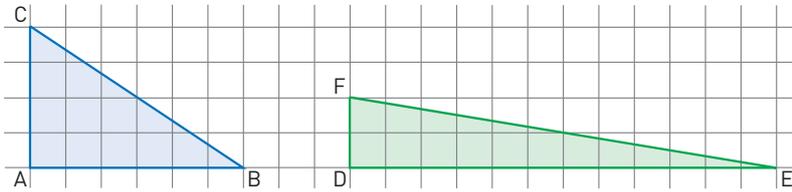
Let us draw a right triangle  $ABC$  such that:

$$\overline{AB} \geq \overline{AC}.$$



Let us draw a right triangle  $DEF$  such that:

$$\overline{DF} = \frac{1}{2} \cdot \overline{AC} \text{ and } \overline{DE} = 2 \cdot \overline{AB}.$$



The two triangles  $ABC$  and  $DEF$  are equivalent because:

$$\frac{1}{2} \cdot \overline{DF} \cdot \overline{DE} = \frac{1}{2} \cdot \frac{1}{2} \cdot \overline{AC} \cdot 2 \cdot \overline{AB} = \frac{1}{2} \cdot \overline{AC} \cdot \overline{AB}.$$

The two triangles are not congruent because  $DF$  is shorter than each of the sides of  $ABC$ :

$$\overline{DF} < \overline{AC} \leq \overline{AB} < \overline{BC}.$$