# SIMILAR TRIANGLES

## A ANGLE-ANGLE SIMILARITY

#### Proposition Angle-Angle Similarity

If two angles of one triangle are equal to two angles of another triangle, then the two triangles are similar.

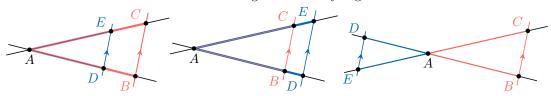
## **B THALES'S THEOREM**

### Theorem Thales's Theorem

Let  $\triangle ABC$  be a triangle, with a point D on the line  $\overrightarrow{AB}$  and a point E on the line  $\overrightarrow{AC}$ . If the line  $\overrightarrow{DE}$  is parallel to the line  $\overrightarrow{BC}$ , then the triangles  $\triangle ABC$  and  $\triangle ADE$  are similar:

$$\frac{AD}{AB} = \frac{AE}{AC} = \frac{DE}{BC}$$

Thales's Configurations: Key Figures



Each red triangle is similar to the blue triangle.