SIMILAR TRIANGLES

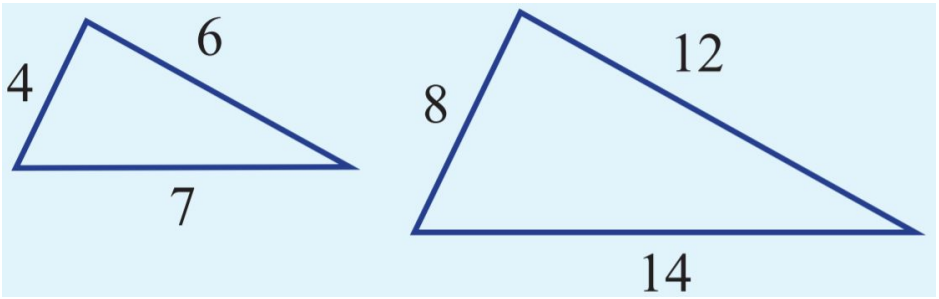
In a pair of similar triangles:

- matching angles are equal
- matching sides are in proportion (same ratio)

There are 4 possible tests to check if two triangles are similar.

TEST 1: all 3 pairs of matching sides are in the same ratio

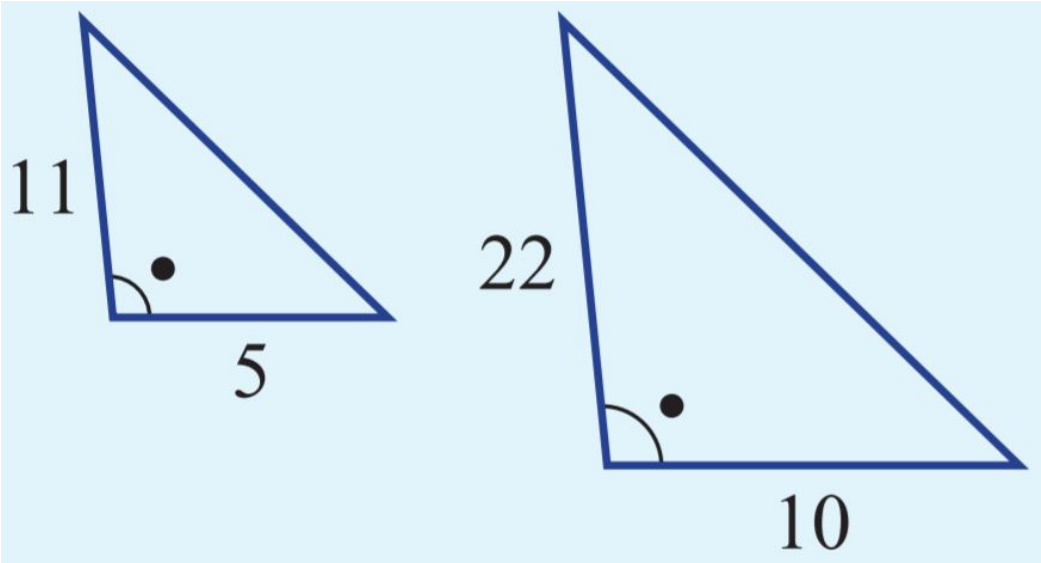
$$\frac{14}{7} = \frac{12}{6} = \frac{8}{4} = 2$$



SIMILAR TRIANGLES - TEST Number 2

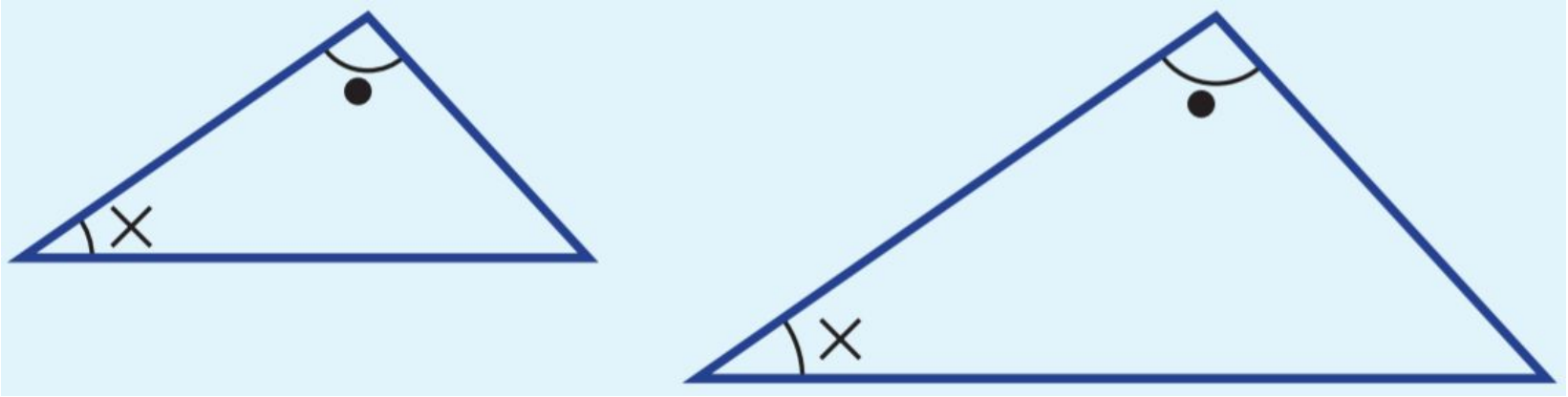
TEST 2: Two pairs of matching sides are in the same ratio and the included angles are equal.

$$\frac{22}{11} = \frac{10}{5} = 2$$



SIMILAR TRIANGLES - TEST Number 3

TEST 3: Two angles of one triangle are equal to two angles of another triangle.



SIMILAR TRIANGLES - TEST Number 4

TEST 4: The hypotenuses of right-angled triangles and another matching pair of sides are in the same ratio.

$$\frac{15}{5} = \frac{6}{2} = 3$$