Identify similar shapes and show shapes are similar
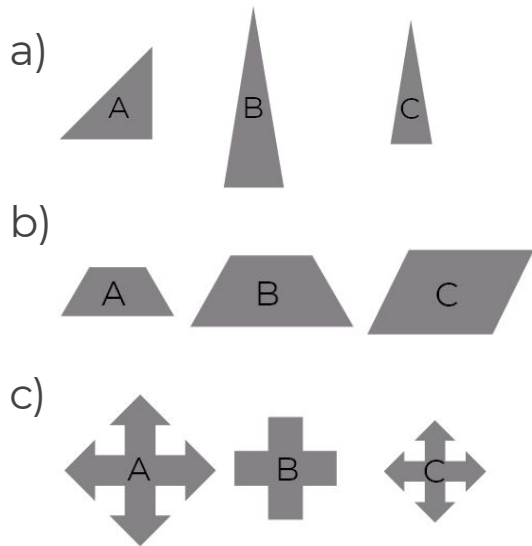
Maths

Mr Chan
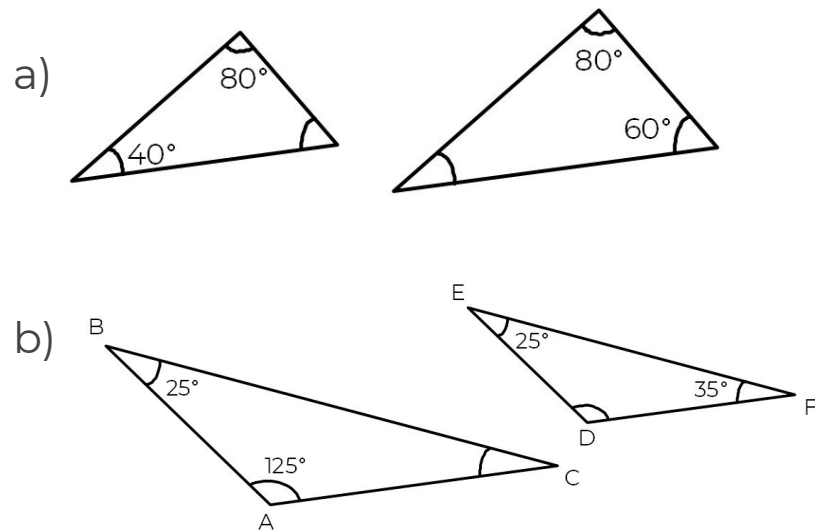
Identify similar shapes and show shapes are similar

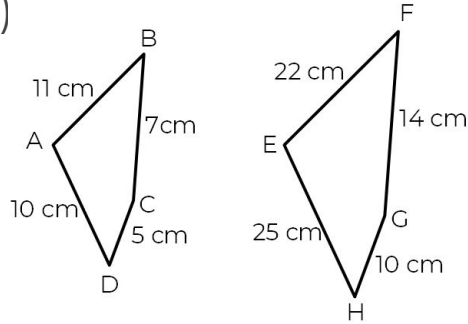1. Decide which two shapes are similar in each set.

a)

b)

c)

2. Decide if these pairs of triangles are similar. How did you decide?
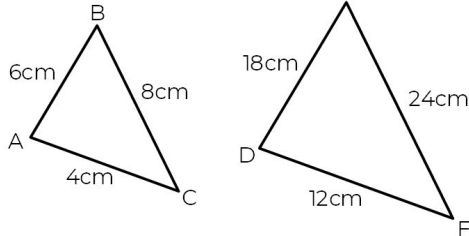
a)

b)

Identify similar shapes and show shapes are similar

3. For each pair of shapes decide if they are similar. How did you decide?

a)

b)

4. Ben says

If two angles are the same in a pair of triangles, then the triangles must be similar.

Amy says

If two side lengths are the same in a pair of triangles, they also must be similar.

a) Is Ben correct? Give a reason.

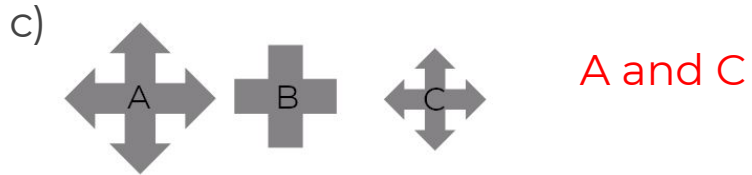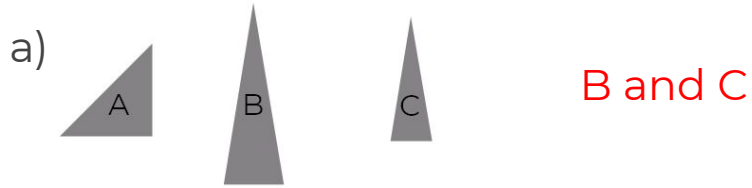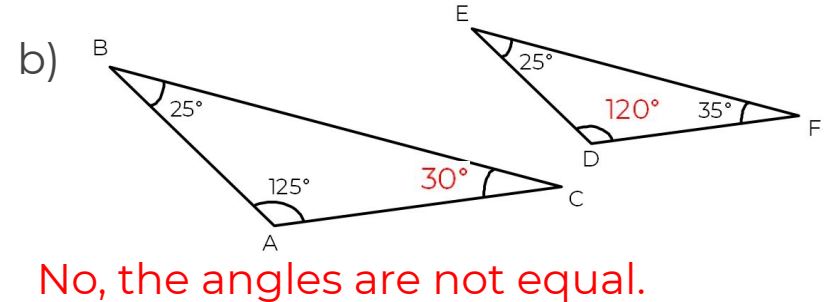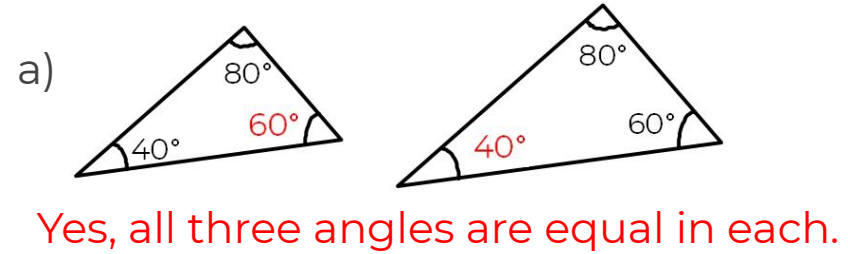b) Is Amy correct? Give a reason.

Answers

Identify similar shapes and show shapes are similar

1. Decide which two shapes are similar in each set.

a)

B and C

b)

A and B

c)

A and C

2. Decide if these pairs of triangles are similar. How did you decide?

a)

80° 60° 40°

80° 60° 40°

Yes, all three angles are equal in each.

b)

B 25° 125° 30° A C

E 25° 120° 35° D F

No, the angles are not equal.

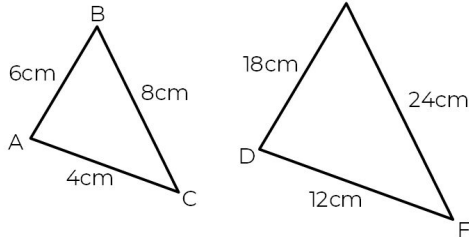# Identify similar shapes and show shapes are similar

3. For each pair of shapes decide if they are similar. How did you decide?

a)
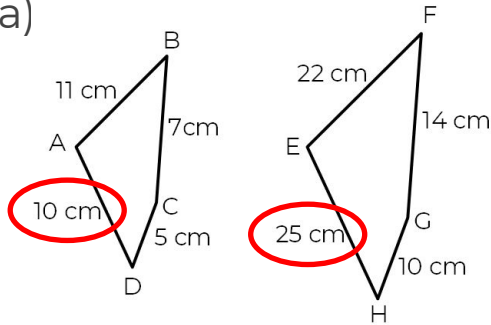
No, each corresponding side has a scale factor of 2 apart from AD and EH

b)

Yes, each corresponding side has a scale factor of 3

4. Ben says

If two angles are the same in a pair of triangles, then the triangles must be similar.

Amy says

If two side lengths are the same in a pair of triangles, they also must be similar.

a) Is Ben correct? Give a reason.

Yes. Angles in a triangle sum to 180°. This means the third angle must be the same in each triangle.

b) Is Amy correct? Give a reason.

No, it would need to be three corresponding sides equal.