Painting By Numbers

NAME: ....

CLASS: ....

DATE: ....

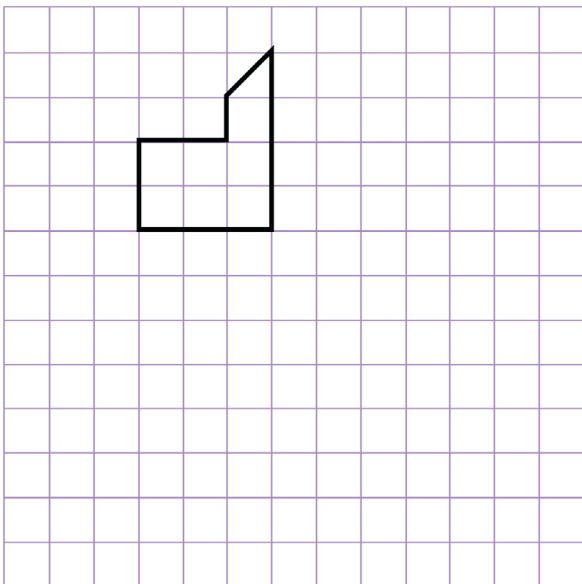## Basic

1) True or false?

a) Enlargements always increase the size of a shape.   b) An enlargement is always similar to the original.

2) What happens to the image when a scale factor of enlargement is:

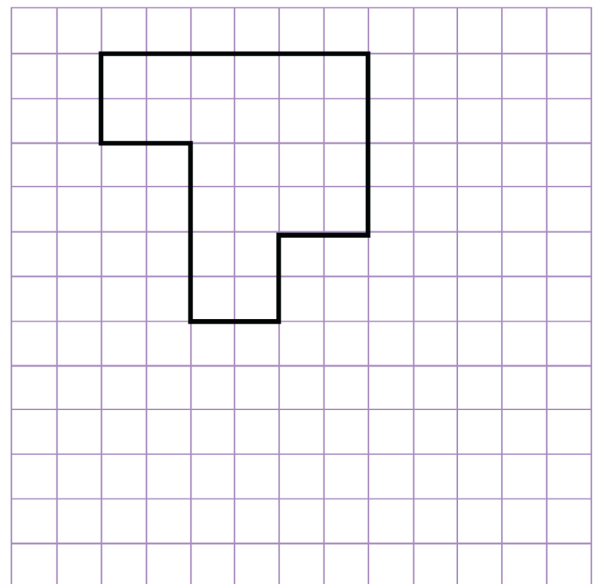a) greater than 1?   b) less than 1 but more than 0?

3) For each diagram draw the enlargement by the given scale factor.

Scale factor 2   Scale factor 0.5

4) Draw your own shape in box A, then enlarge using the scale factor in box B.

A

B

NAME: ....

CLASS: ....
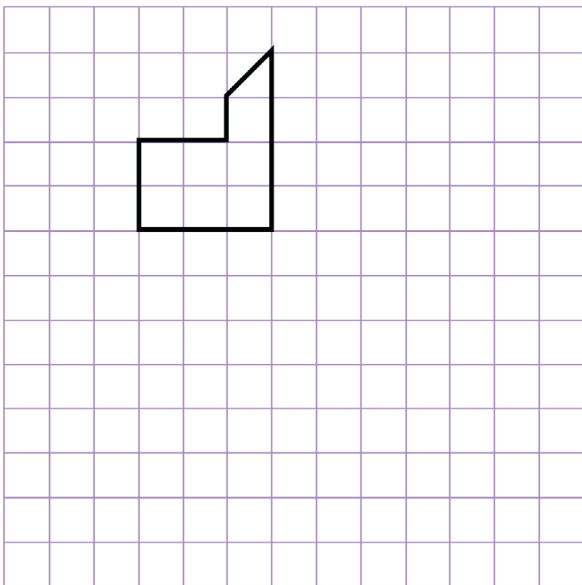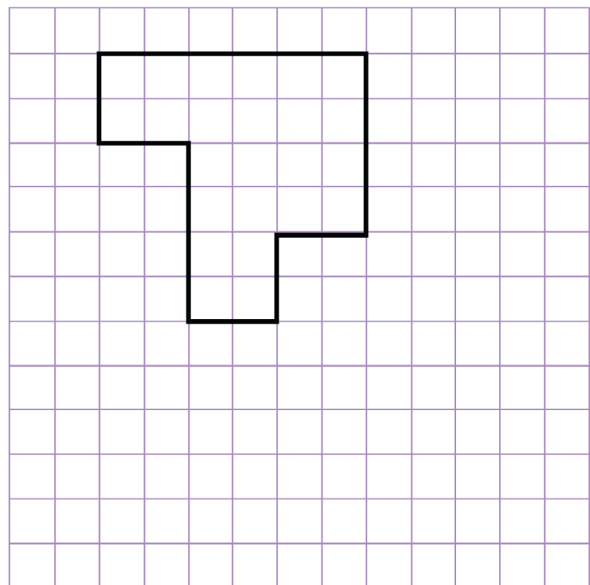
DATE: ....
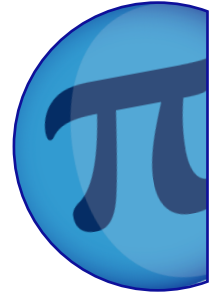
Core

1) For each diagram draw the enlargement by the given scale factor.

Scale factor 2

Scale factor 0.5
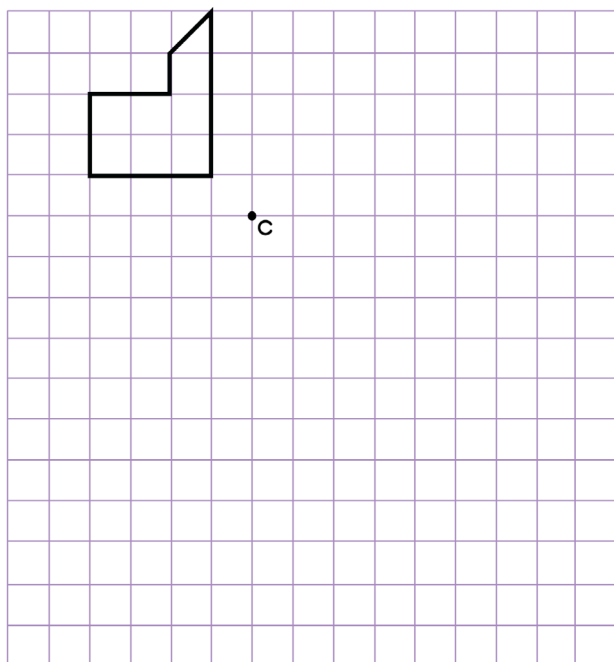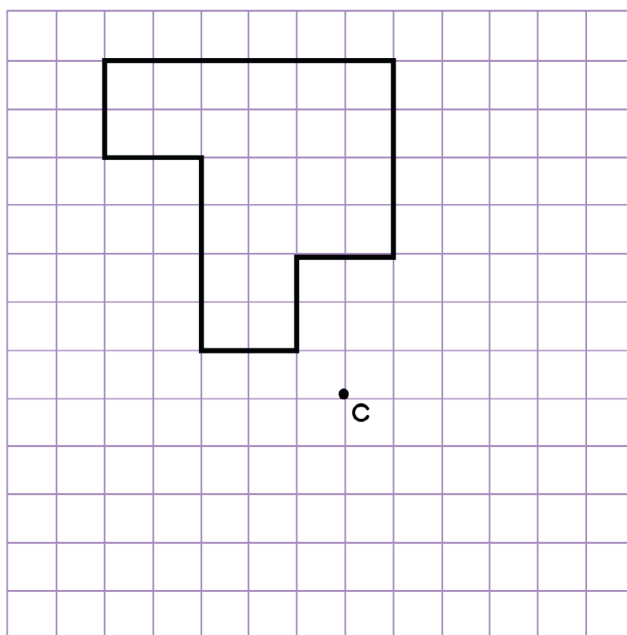
Core

2) For each diagram draw the enlargement with the given scale factor and centre of enlargement (C).
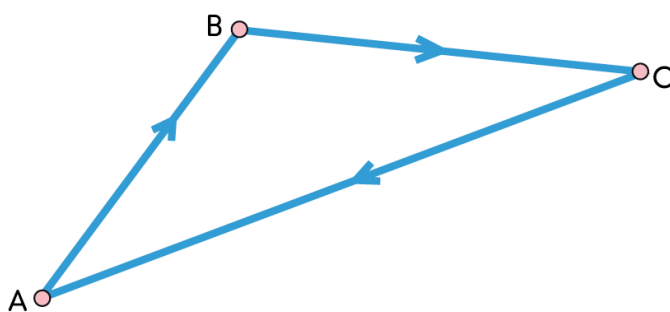
Scale factor 2

Scale factor 0.5

3) The course of a yacht race from point A to point B to point C and back to point A is shown in the diagram.

Using the scale of 1cm to 50km, calculate the total distance of the completed course.

4) On a map, the scale is 1cm:1250m.

a) If the distance between Hamilton and Glasgow is shown on the map as 8cm, how far apart are they in real terms? Give your answer in km.

b) The actual distance between Glasgow and Paisley is 12km. How many centimetres will represent this distance on the same map?

Painting By Numbers

NAME: ....

CLASS: ....

DATE: ....
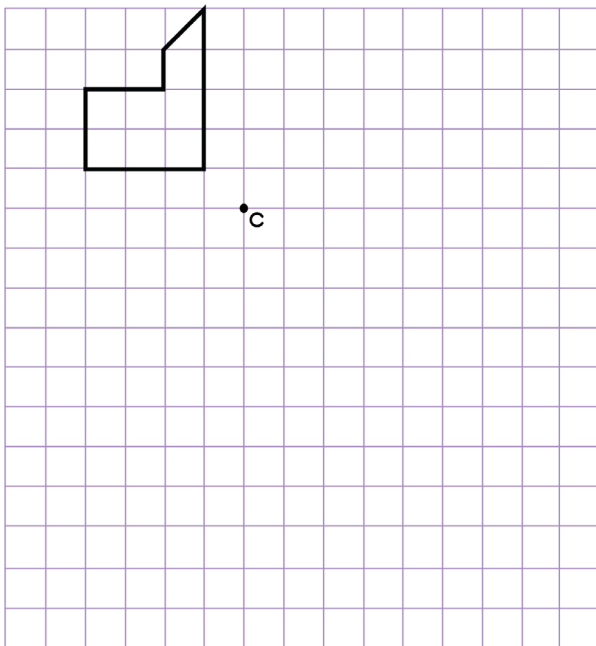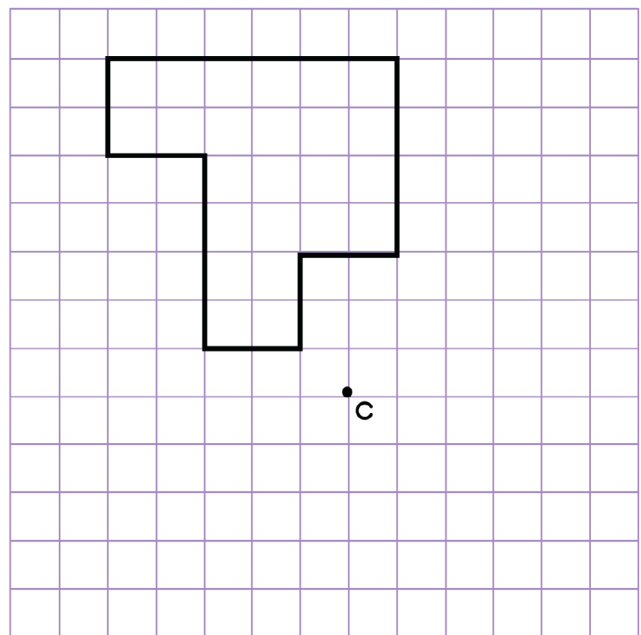
Advanced

1) For each diagram draw the enlargement with the given scale factor and centre of enlargement (C).

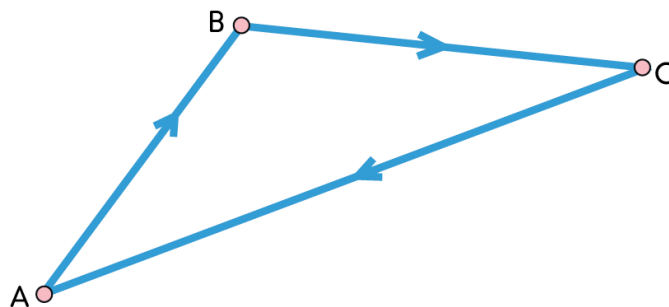Scale factor 2   Scale factor 0.5

2) The course of a yacht race from point A to point B to point C and back to point A is shown in the diagram.

Using the scale of 1cm to 50km, calculate the total distance of the completed course.
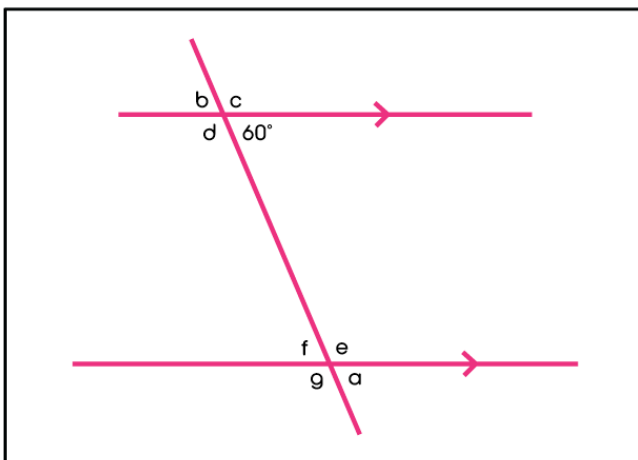
3) On a map, the scale is 1cm:1250m.

a) If the distance between Hamilton and Glasgow is shown on the map as 8cm, how far apart are they in real terms? Give your answer in km.
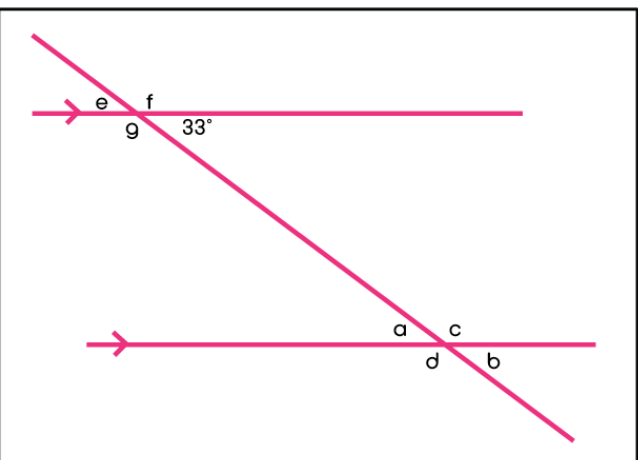
b) The actual distance between Glasgow and Paisley is 12km. How many centimetres will represent this distance on the same map??

4) Calculate all of the angles in the following diagrams.

a)   b)
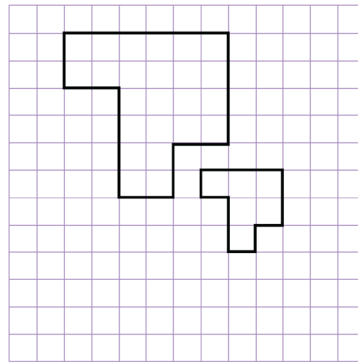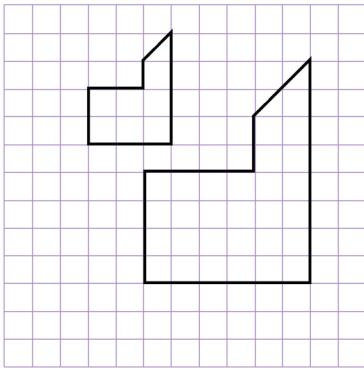
ANSWERS

Basic
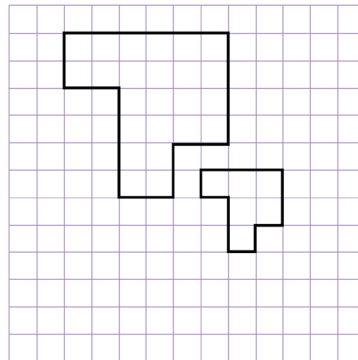
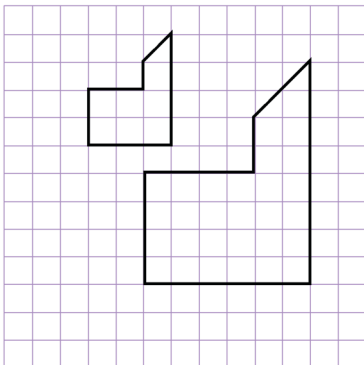**1) a) False**   **b) True**

2) a) Increases in size   **b) Decreases in size**

3)

Core

1)

2)
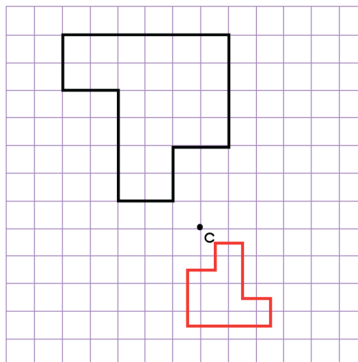
ANSWERS

Core

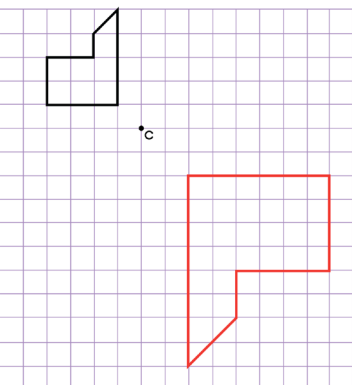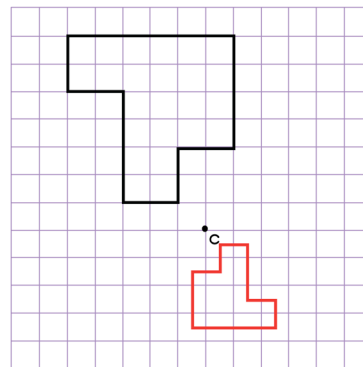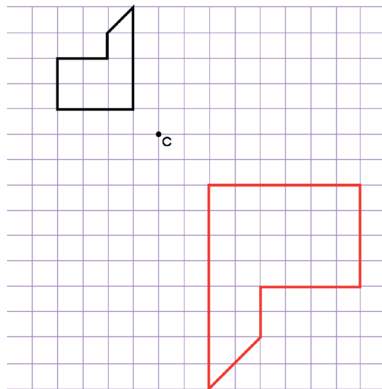**3) 720km**

4) a) 10km   **b) 9.6cm**

Advanced

1)

2) 720km

3) a) 10km   **b) 9.6cm**

4) a)

a) 60°; b) 60°; c) 120°; d) 120°; e) 120°; f) 60°; g) 120°

b)

a) 33°; b) 33°; c) 147°; d) 147°; e) 33°; f) 147°; g) 147°