White Rose Maths

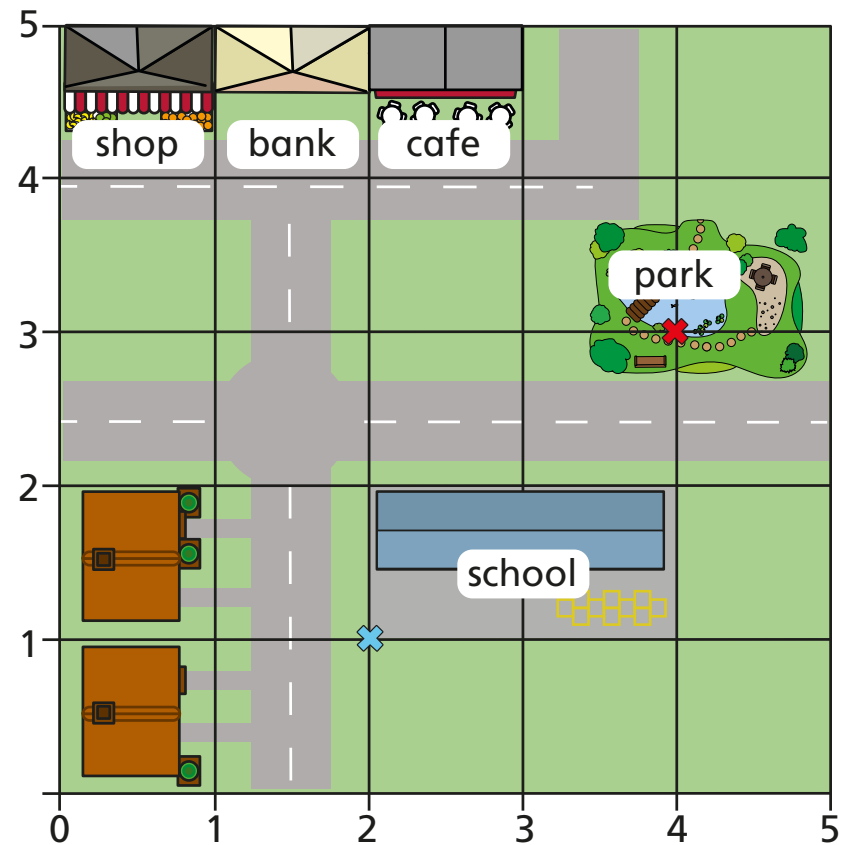**1** Here is a map of part of a town.

a) Annie is at the park at the coordinate (4, 3).

She moves 3 squares to the left.

Draw on the grid to show where Annie is now.

What are the coordinates of this point? (☐ , ☐)
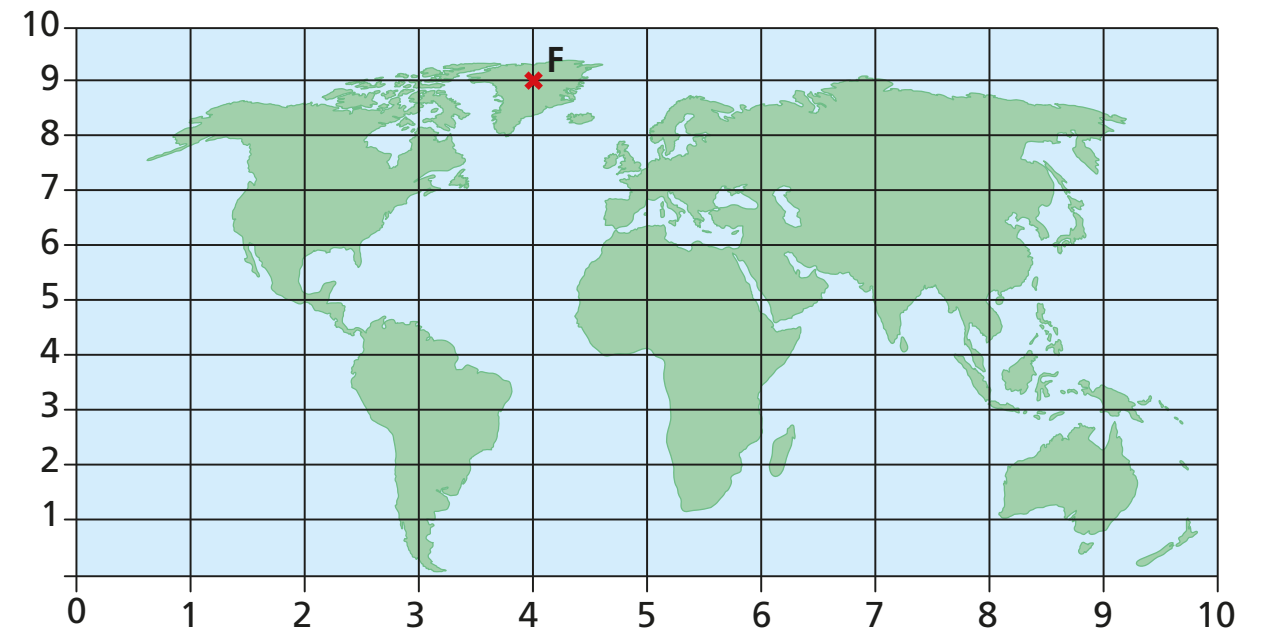
b) Mo is at school at the coordinate (2, 1).

He walks 2 squares up.

Draw on the grid to show where Mo is now.

What are the coordinates of this point? (☐ , ☐)

2 A map of the world is shown on a grid.

a) A plane is at point F.

What are the coordinates of this point? (☐ , ☐)

b) The plane takes off from point F and travels 2 right and 5 down.

Mark its new position on the grid and label this as point G.
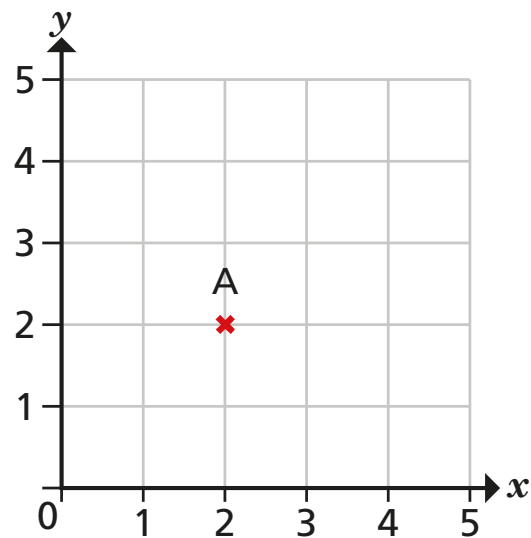
What are the coordinates of point G? (☐ , ☐)

c) The plane now takes off from point G and travels 4 left and 2 up.

Mark its new position and label this point H.

What are the coordinates of point H? (☐ , ☐)

3 Point A is marked on the grid.

a) What are the coordinates of point A? (□ , □)

b) Translate point A 3 to the right and 2 up.

Label this point B and write its coordinates. (□ , □)

c) Translate point B 3 to the left.

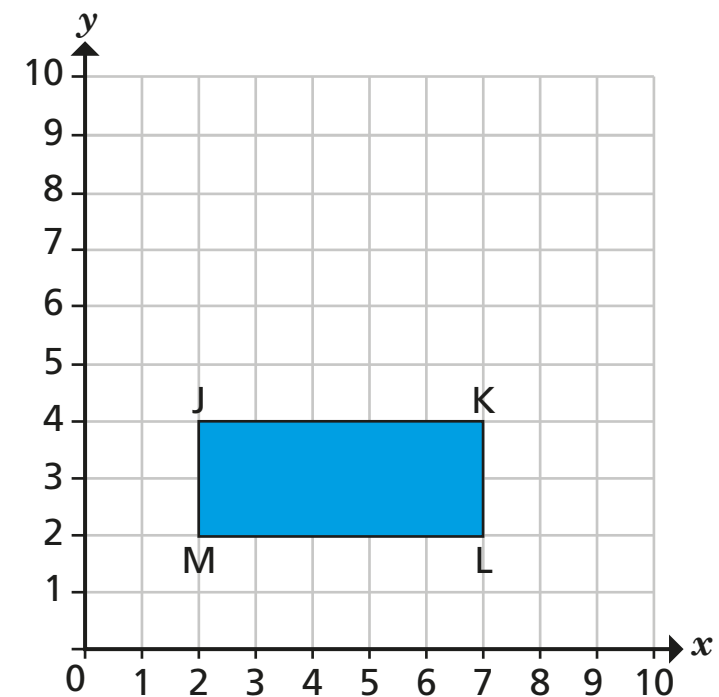Label this point C and write its coordinates. (□ , □)

d) Translate point C 3 to the right and 2 down.

Label this point D and write its coordinates. (□ , □)

e) Join the points.

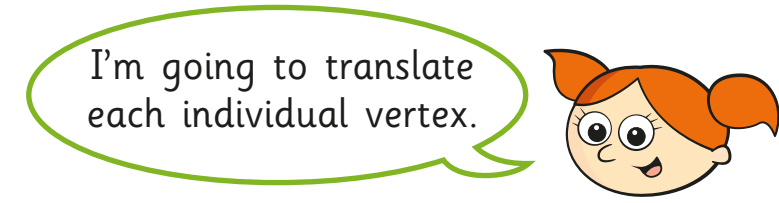What shape have you made? _____

Create your own problem like this for a partner.

4 A rectangle is drawn on the grid.

a) Alex wants to translate the rectangle 3 to the right and 4 up.

> I'm going to translate each individual vertex.

Will Alex's method work? _____

Talk about it with a partner.

b) Translate the rectangle 3 to the right and 4 up.
Complete the table to show the coordinates of each vertex before and after the translation.

Vertex	Before	After
J		
K		
L		
M		