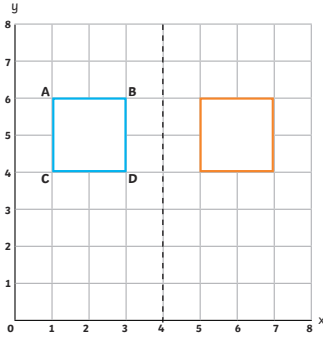


1) The shape children should have drawn is shown by the orange square.



- 2) a) A (1,6) B (3,6) C (1,4) D (3,4)  
 b) (5,6) (7,6) (5,4) (7,4)

1) Accept any correct answer, for example taking each vertex of the original shape one at a time and counting the distance in squares from the mirror line. Then repeating this distance across the mirror line to plot the corresponding vertex to show the reflected shape.



- 2) a) Children should identify that the x coordinate stays the same and the y coordinate changes.  
 b) Circle the correct answer in these sentences.

When reflecting a shape in a mirror line that passes through the x axis, the x (y) coordinate will stay the same and the (x) y coordinate will change.

When reflecting a shape in a mirror line that passes through the y axis, the x (y) coordinate stays the same and the x (y) coordinate changes.

1) a) If you reflect a square in a vertical line, which coordinates will change and which will stay the same? Why?



The x coordinate will change as it moves to the side; the y coordinate stays the same because the shape doesn't go any higher.

b) Which coordinates will change if you reflect a square in a horizontal line?

The y coordinate will change as the shape moves up or down.

c) Investigate if this is the same for other shapes.

Encourage children to draw and reflect shapes to carry out their investigations. Can they prove that only one coordinate changes if they reflect any shape in a horizontal or vertical line?

2) a) The shape has been reflected in a line that is parallel to the x axis. Accept any correct answer, for example the child might have worked out the original coordinates of B (7,8) and then identified that the second digit (the y coordinate) has changed.

b)

| Original shape | Reflected shape |
|----------------|-----------------|
| (5,8)          | (5,2)           |
| B (7,8)        | (7,2)           |
| C (5,6)        | (5,4)           |
| (7,6)          | (7,4)           |

Teacher to check children's explanations. Children may wish to use drawings to assist them with their explanations.