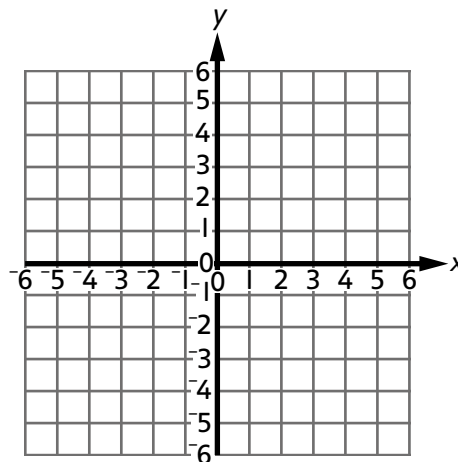# Deepen Activities

1 A treasure chest is hidden at one point on this grid.
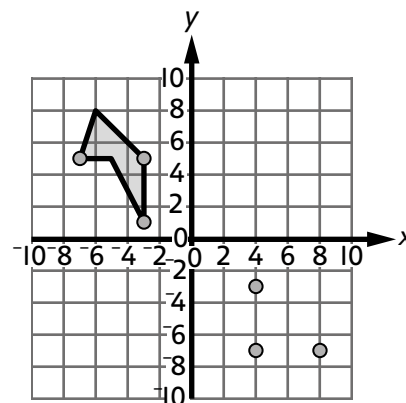
- Ebo says, 'It is in a rectangle with vertices at (⁻3, ⁻2), (1, 2) and (⁻3, ⁻3).'

- Danny says, 'It is in a square with vertices at (⁻3, ⁻3), (⁻1, 0) and (0, 5).'

- Emma says, 'It is in a triangle with vertices at (⁻2, 2), (4, 1) and (4, ⁻3).'

Where is the treasure chest?

2 This shape is moved on a grid. Some of the new vertices are shown.

a) Complete the new shape and label the coordinates of its vertices.

b) Describe how it moved. Use the words 'reflected' and 'translated'.

3 A right-angled triangle has two vertices at (⁻2, ⁻2) and (1, ⁻4).

a) What might the third vertex be?

b) The triangle is half of a square. Give the coordinates of the square.

c) The square is half of a rectangle. Give the coordinates of the rectangle.

> I think there is more than one possible rectangle!