

Name:

Maths Assessment Year 6: Geometry - Position and Direction

You will need a ruler for this task.



1. Describe positions on the full coordinate grid (all four quadrants).
2. Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

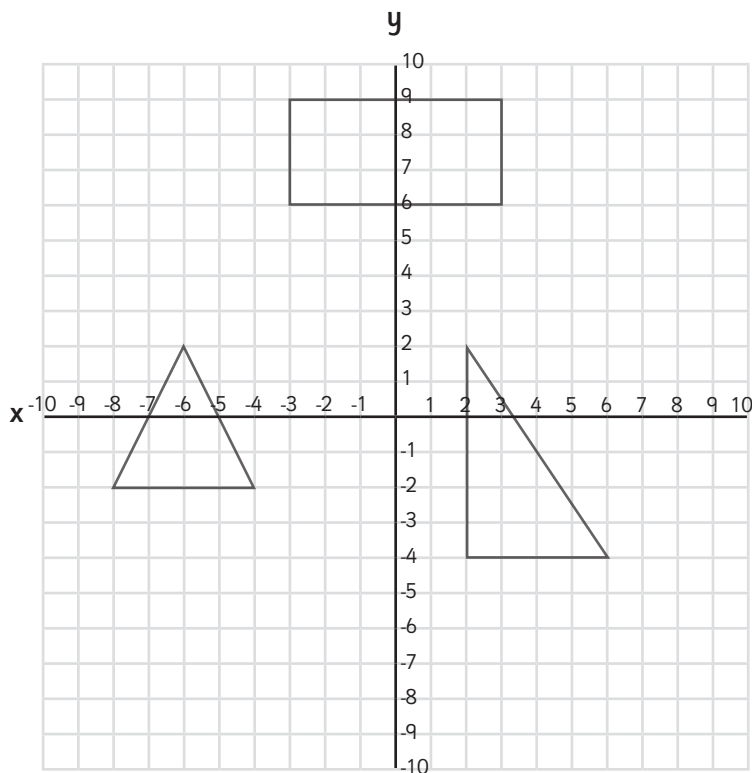
Name:




Date:

Maths Assessment Year 6: Geometry - Position and Direction

1. Describe positions on the full coordinate grid (all four quadrants).

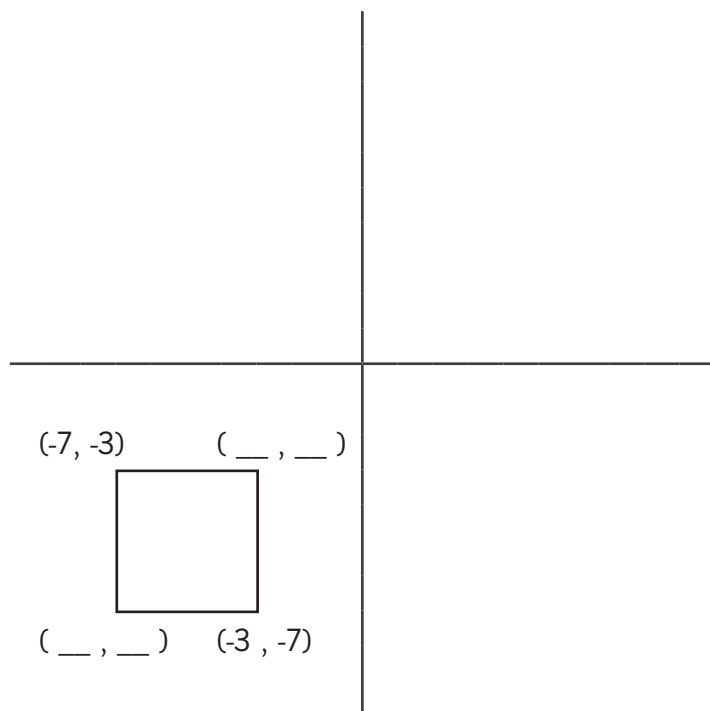
a) Label the coordinates of all of the vertices of each shape:



shape	coordinates
	(__ , __) (__ , __) (__ , __) (__ , __)
	(__ , __) (__ , __) (__ , __)
	(__ , __) (__ , __) (__ , __)

3 marks

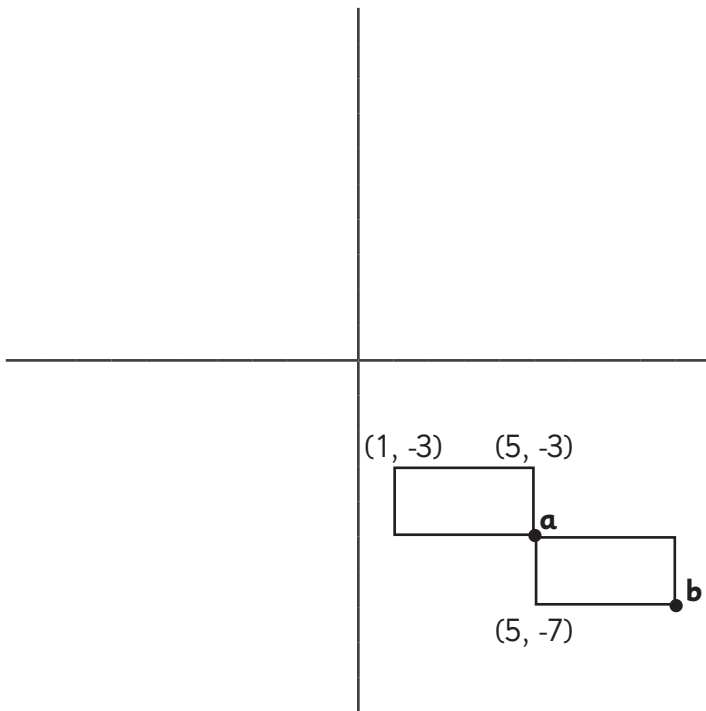
b) Label the missing coordinates of the vertices of this shape:



1 mark

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c) Here are two identical rectangles on a coordinates grid. What are the coordinates of **a** and **b**?



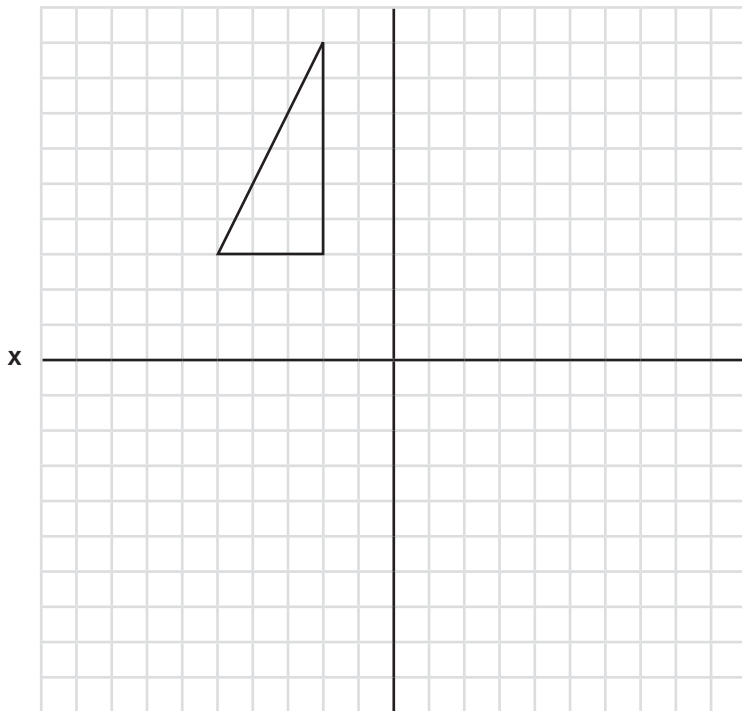
shape	coordinates
a	(__ , __)
b	(__ , __)

2 marks

2. Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

a) Reflect this triangle in the y axis:

y

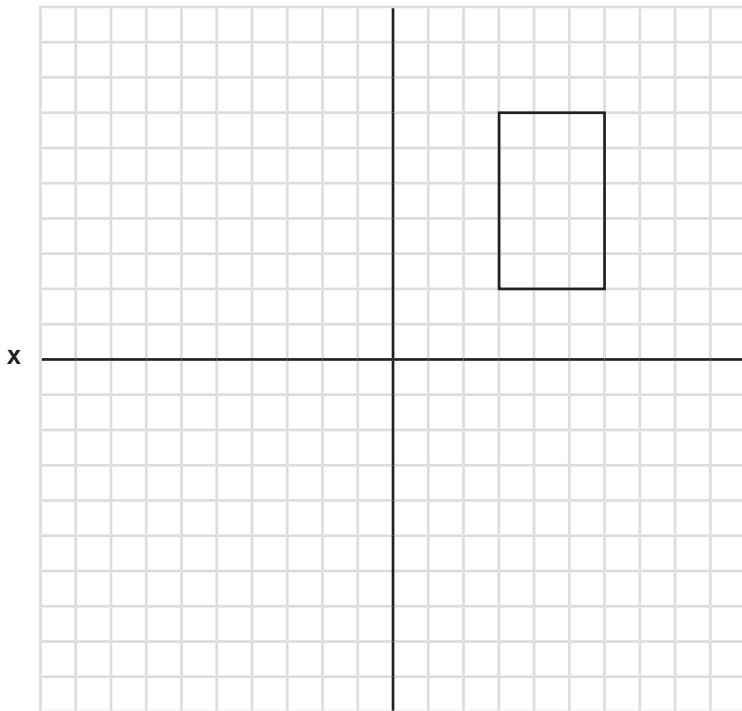


1 mark

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b) Translate this shape 7 places to the left:

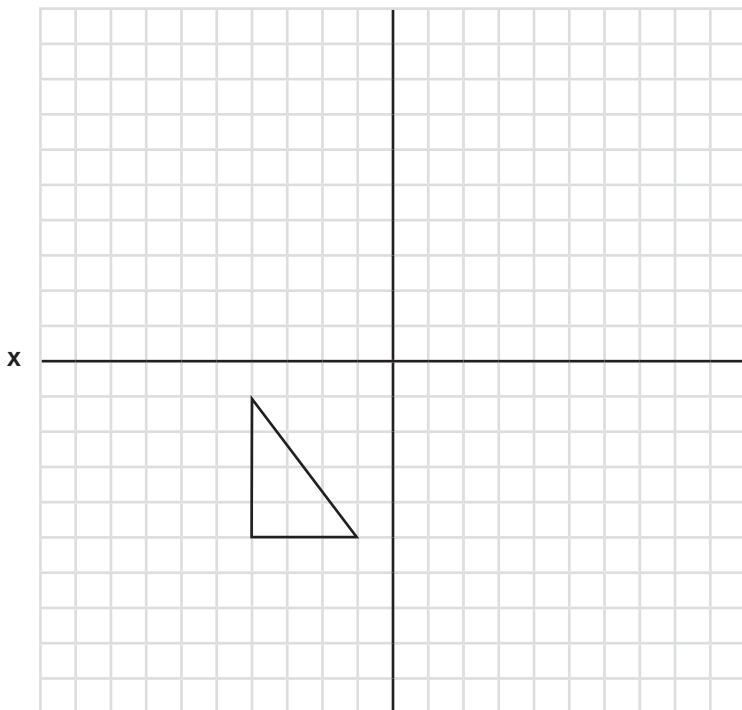
y



c) This shape is to be reflected in the x axis, then translated 1 place up.

Draw the new shape:

y

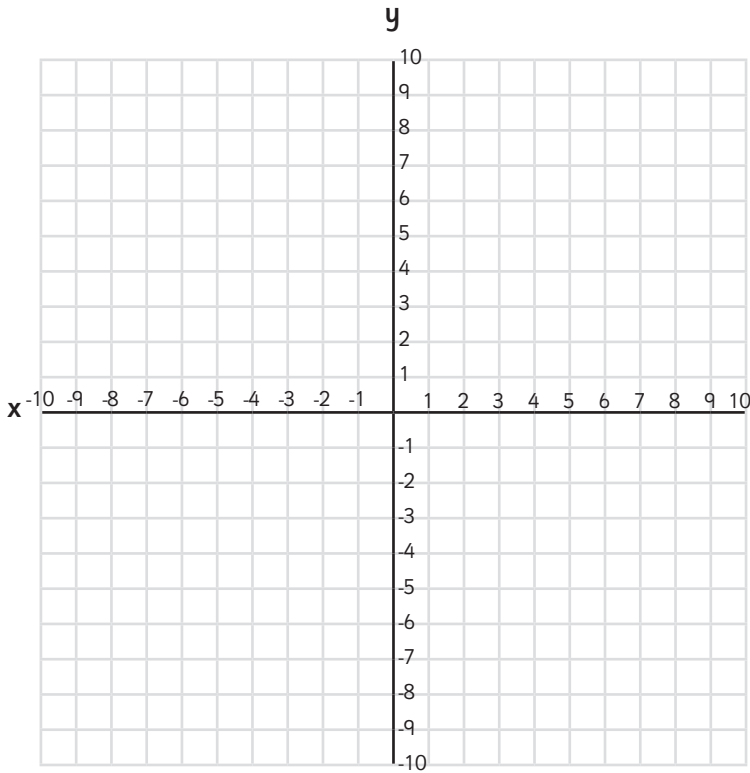


1 mark

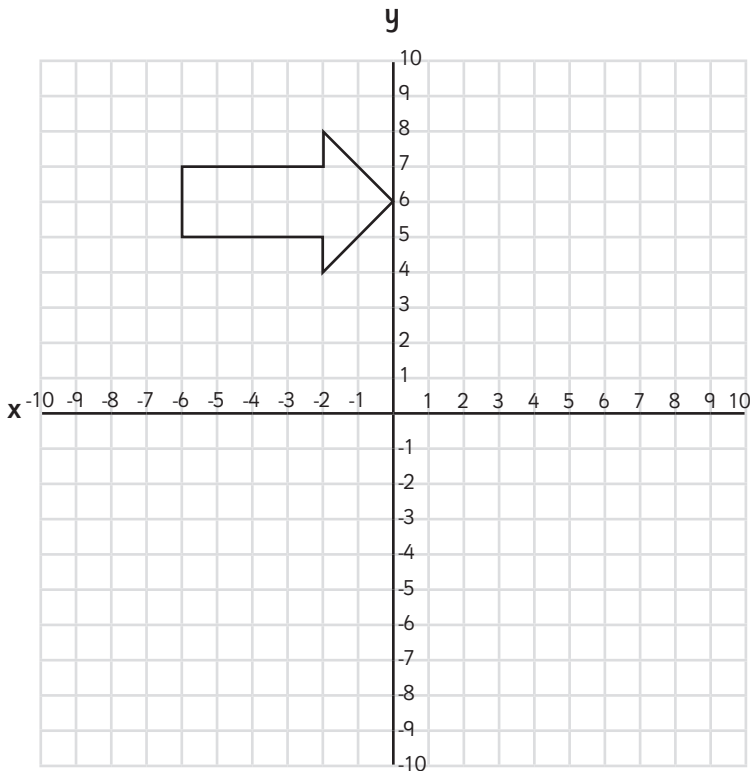
2 marks

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d) Use these coordinates to draw a shape: $(-1, 1)$ $(-1, -3)$ $(5, -3)$ $(5, 1)$.



e) Translate this shape 5 places to the right.



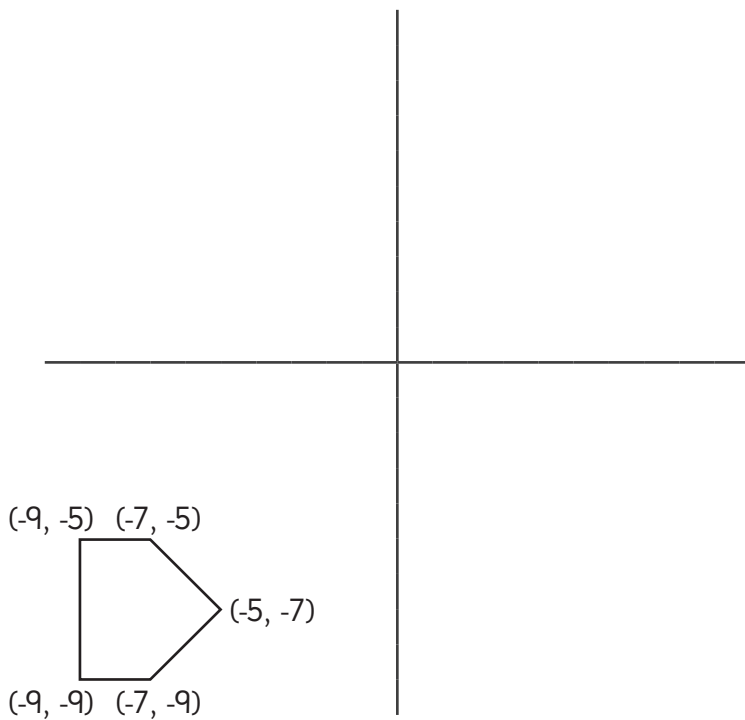
What are the coordinates at its vertices?

1 mark

2 marks

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f) This shape is to be translated 6 places up.



Write down the new coordinates of its vertices.










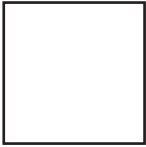
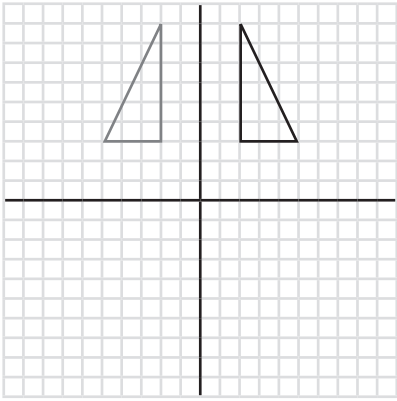
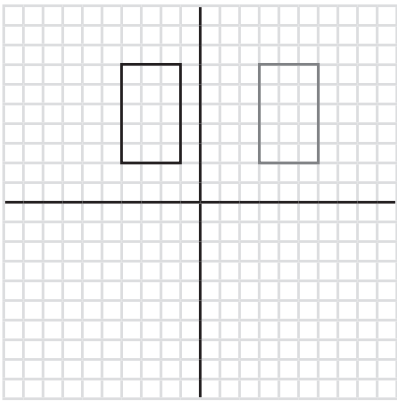
(__ , __) (__ , __) (__ , __) (__ , __) (__ , __)

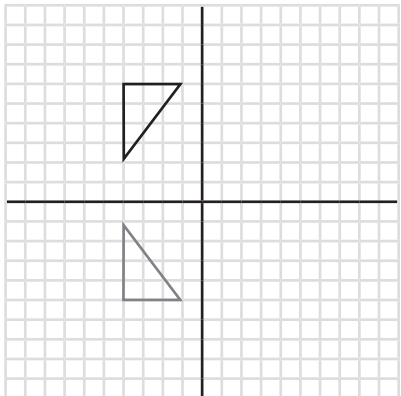
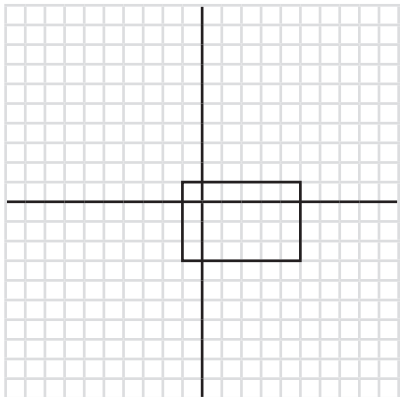
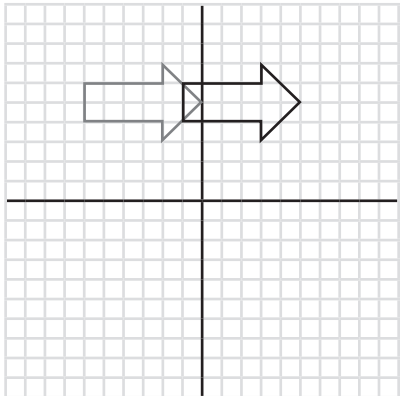


2 marks



Total for this page

question	answer	marks	notes								
1. Describe positions on the full coordinate grid (all four quadrants).											
a	<table border="1"> <tr> <td>shape</td> <td>coordinates</td> </tr> <tr> <td></td> <td>$(-3, 6) (-3, 9) (3, 6) (3, 9)$</td> </tr> <tr> <td></td> <td>$(-8, -2) (-4, -2) (-6, 2)$</td> </tr> <tr> <td></td> <td>$(2, -4) (6, -4) (2, 2)$</td> </tr> </table>	shape	coordinates		$(-3, 6) (-3, 9) (3, 6) (3, 9)$		$(-8, -2) (-4, -2) (-6, 2)$		$(2, -4) (6, -4) (2, 2)$	3	One mark for each set of coordinates correctly identified. Accept coordinates within a set in any order.
	shape	coordinates									
		$(-3, 6) (-3, 9) (3, 6) (3, 9)$									
	$(-8, -2) (-4, -2) (-6, 2)$										
	$(2, -4) (6, -4) (2, 2)$										
b	<p>$(-7, -3)$ $(-3, -3)$</p>  <p>$(-7, -7)$ $(-3, -7)$</p>	1									
c	<table border="1"> <tr> <td>a</td> <td>$(5, -5)$</td> </tr> <tr> <td>b</td> <td>$(9, -7)$</td> </tr> </table>	a	$(5, -5)$	b	$(9, -7)$	2					
a	$(5, -5)$										
b	$(9, -7)$										
2. Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.											
a		1									
b		1									

question	answer	marks	notes
c		2	
d		1	
e	 <p data-bbox="268 1585 847 1653">The new coordinates at the vertices would be: (-1, 5) (-1, 7) (3, 5) (3, 4) (5, 6) (3, 8) (3, 7)</p>	2	Accept coordinates in any order.
f	<p data-bbox="280 1675 831 1709">(-9, 1) (-7, 1) (-5, -1) (-7, -3) (-9, -3)</p>	2	
		Total 15	