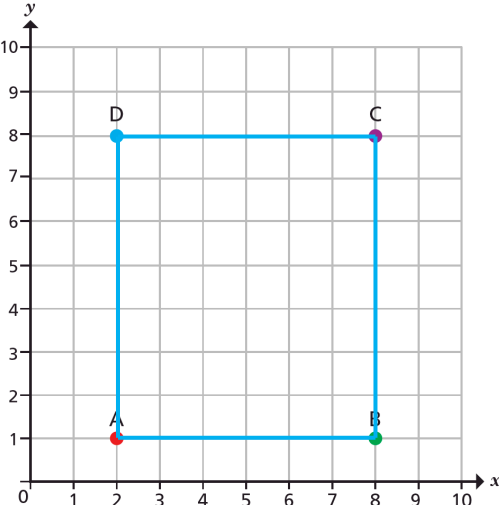
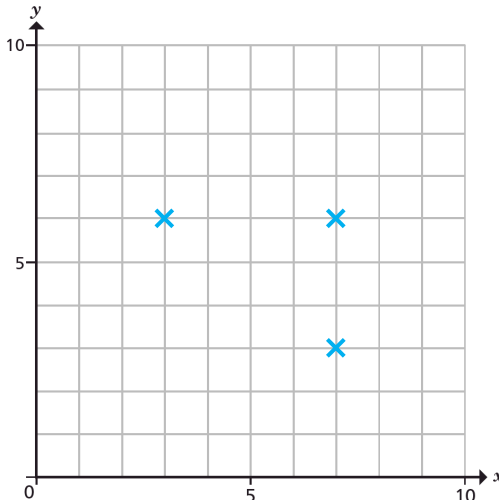
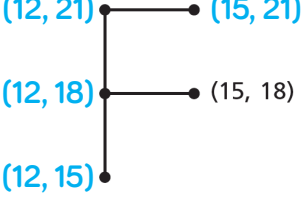
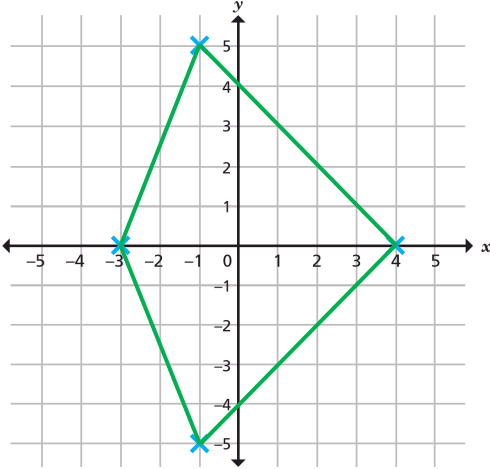


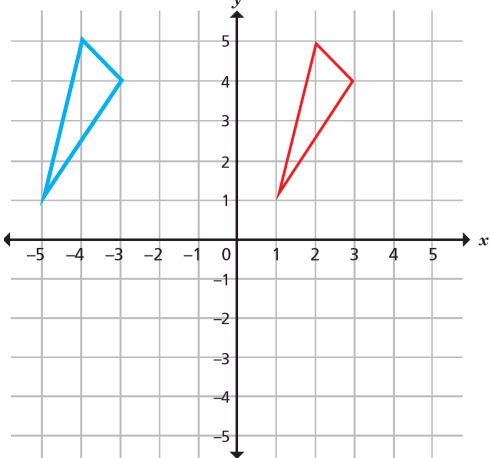
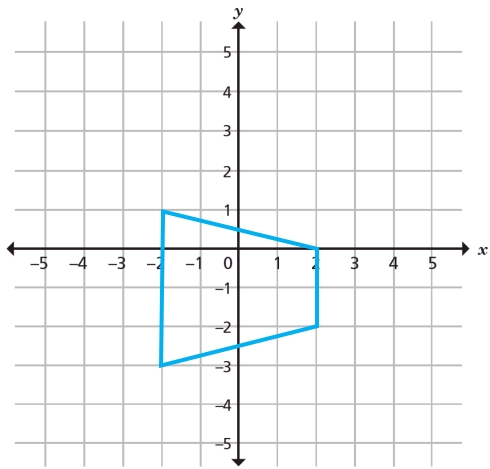
Question	Answer									
1	<p>a) A (2, 1) B (8, 1) C (8, 8) D (2, 8)</p> <p>b) </p> <p>c) multiple possible answers, e.g.:</p> <table border="1" data-bbox="264 903 848 1048"> <thead> <tr> <th>Inside the rectangle</th> <th>Outside the rectangle</th> <th>On the perimeter of the rectangle</th> </tr> </thead> <tbody> <tr> <td>(5, 3) (3, 2)</td> <td>(1, 1) (9, 8)</td> <td>(2, 1) (2, 5)</td> </tr> <tr> <td>(4, 6) (7, 4)</td> <td>(5, 0) (0, 6)</td> <td>(7, 1) (5, 8)</td> </tr> </tbody> </table>	Inside the rectangle	Outside the rectangle	On the perimeter of the rectangle	(5, 3) (3, 2)	(1, 1) (9, 8)	(2, 1) (2, 5)	(4, 6) (7, 4)	(5, 0) (0, 6)	(7, 1) (5, 8)
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(4, 6) (7, 4)	(5, 0) (0, 6)	(7, 1) (5, 8)								
2	<p>a) </p> <p>b) (3, 3)</p>									
3	<p>(9, 2) and (9, 6) (1, 2) and (1, 6)</p>									

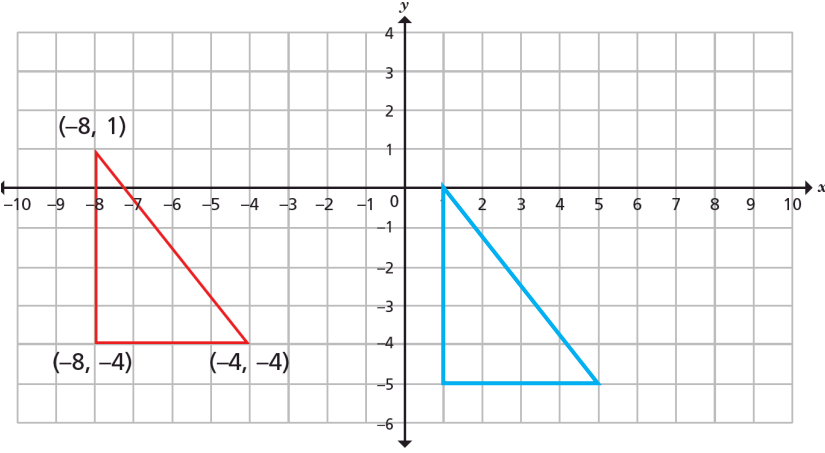
Y6 – Autumn – Block 4 – Step 1 – The first quadrant Answers (continued)

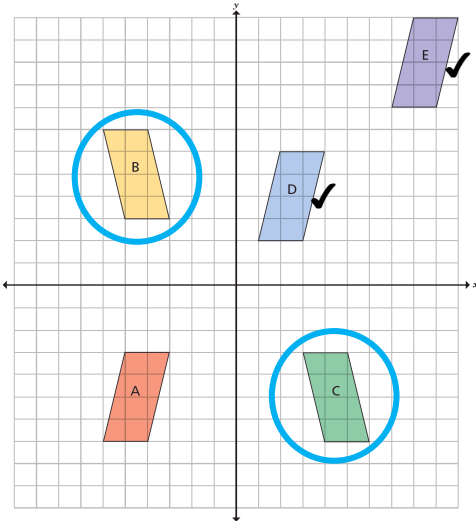
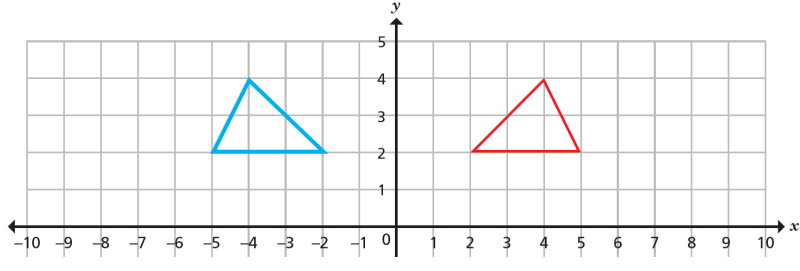
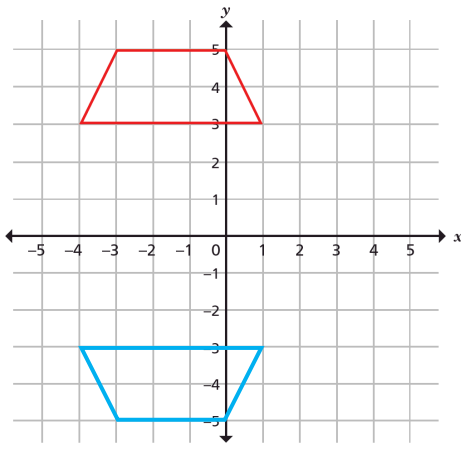
Question	Answer
4	<p>a) multiple possible answers, e.g.: (1, 14) (4, 14) (1, 11)</p> <p>b) multiple possible answers, e.g.: (3, 7) (5, 7) (5, 9) (4, 10) (3, 9)</p> <p>c) multiple possible answers, e.g.: (4, 1) (2, 2) (2, 4) (4, 5)</p> <p>d) child's shapes from parts a), b), c) plotted on coordinate grid Children can check that their partner has plotted the listed coordinates accurately. Their shapes will have the same properties as defined in each part, but otherwise are unlikely to be the same.</p>
5	(25, 75)
6	<p>any answer following the pattern below: all adjacent points have one coordinate the same and the distance between the others is constant, e.g.:</p> 

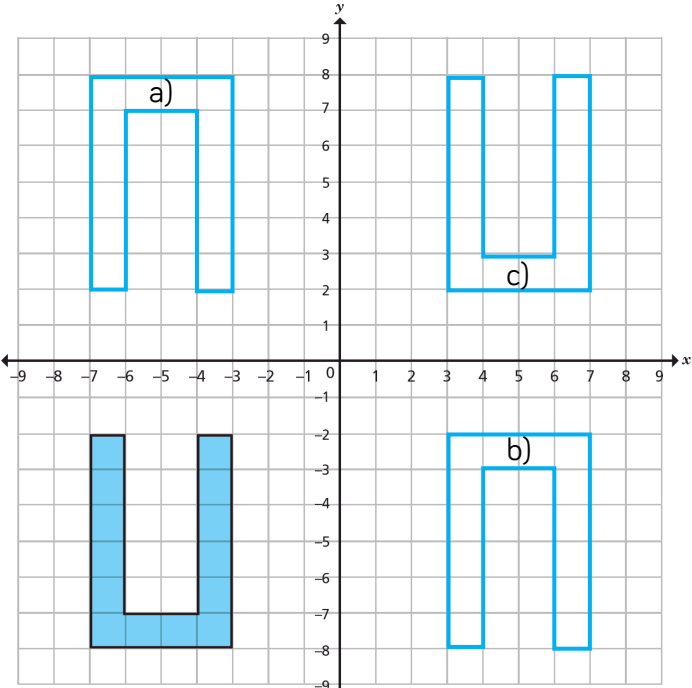
Question	Answer																								
1	A (3, 2) B (-3, 2) C (-3, -2) D (3, -2) E (-4, -4) F (4, 4) G (-4, 4) H (4, -4)																								
2	square A = (-1, 3), (-1, 6), (-4, 6), (-4, 3) square B = (2, 0), (5, 0), (5, 3), (2, 3)																								
3	a), b)  c) The quadrilateral is a kite .																								
4	a) multiple possible answers: In quadrant P, both coordinates are positive. In quadrant Q, the x -coordinate is negative and the y -coordinate is positive. In quadrant R, both coordinates are negative. In quadrant S, the x -coordinate is positive and the y -coordinate is negative. <table border="1" data-bbox="264 1477 902 1850" style="margin: 10px auto;"> <thead> <tr> <th colspan="2" style="background-color: #d3d3d3;">Quadrant P</th> <th colspan="2" style="background-color: #d3d3d3;">Quadrant R</th> </tr> </thead> <tbody> <tr> <td>(2, 4)</td> <td>(71, 60)</td> <td>(-4, -11)</td> <td>(-1, -1)</td> </tr> <tr> <td>(3, 1)</td> <td>(5, 17)</td> <td>(-19, -27)</td> <td>(-8, -9)</td> </tr> <tr> <th colspan="2" style="background-color: #d3d3d3;">Quadrant Q</th> <th colspan="2" style="background-color: #d3d3d3;">Quadrant S</th> </tr> <tr> <td>(-7, 11)</td> <td>(-4, 1)</td> <td>(2, -5)</td> <td>(30, -4)</td> </tr> <tr> <td>(-5, 21)</td> <td>(-100, 2)</td> <td>(17, -12)</td> <td>(6, -1)</td> </tr> </tbody> </table> b) (3, 0) (0, 4) (0, 0) (-7, 0) At least one of the coordinates is zero.	Quadrant P		Quadrant R		(2, 4)	(71, 60)	(-4, -11)	(-1, -1)	(3, 1)	(5, 17)	(-19, -27)	(-8, -9)	Quadrant Q		Quadrant S		(-7, 11)	(-4, 1)	(2, -5)	(30, -4)	(-5, 21)	(-100, 2)	(17, -12)	(6, -1)
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Question	Answer
5	<p>a)</p> <p>b) multiple possible answers where x-coordinate is twice the y-coordinate and the opposite sign, e.g.: $(-2, 1)$, $(0, 0)$, $(8, -4)$</p>
6	<p>M $(-12, 19)$ N $(20, 5)$</p>

Question	Answer
1	<p>a) From P to Q is 2 right and 3 up b) From Q to R is 6 right and 2 up c) From R to S is 9 left and 3 up d) From S to P is 1 right and 8 down e) From Q to P is 2 left and 3 down f) From R to Q is 6 left and 2 down g) From S to R is 9 right and 3 down h) From P to S is 1 left and 8 up</p>
2	<p>No. The translation is 4 right and 4 up. Rosie did not describe the translation of the corresponding corners of the squares. Instead she looked at the corners closest to each other.</p>
3	
4	<p>a)</p> 
5	<p>Triangles A, D and E are translations of each other. Triangle C is not a translation because it is facing the other way. Triangle B is not a translation because it is larger.</p>

Question	Answer																								
6	<p>a)</p>  <p>b)</p> <table border="1" data-bbox="268 648 839 855"> <thead> <tr> <th>Point</th> <th>Inside the new triangle</th> <th>Outside the new triangle</th> <th>On the perimeter of the new triangle</th> </tr> </thead> <tbody> <tr> <td>(0, 0)</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>(4, -5)</td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>(2, -1)</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>(-6, -3)</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>(3, -4)</td> <td>✓</td> <td></td> <td></td> </tr> </tbody> </table>	Point	Inside the new triangle	Outside the new triangle	On the perimeter of the new triangle	(0, 0)		✓		(4, -5)			✓	(2, -1)		✓		(-6, -3)		✓		(3, -4)	✓		
Point	Inside the new triangle	Outside the new triangle	On the perimeter of the new triangle																						
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(-6, -3)		✓																							
(3, -4)	✓																								
7	(10, -15), (40, -15), (29, 14), (-1, 14)																								

Question	Answer
1	<p>a), b)</p> 
2	
3	<p>a) trapezium</p> <p>b)</p> 

Question	Answer
4	 <p>The shape in part c) is a translation 10 right and 10 up of the original shape.</p> <p>e) Children need to include both translations and reflections in their questions.</p>
5	(15, 15), (15, 10), (30, 10), (30, 15)
6	<ul style="list-style-type: none"> ★ = -30 ● = -55 ▲ = 25 ■ = -30 ♥ = -30 ☀ = -45