

Canonbury Home Learning

Year 6 Maths

Developing/ Expected/ Greater depth activity

Lesson 2

LO: TBAT translate shapes.

Task: You are going apply your knowledge to solve several problems including translation.

Success Criteria:

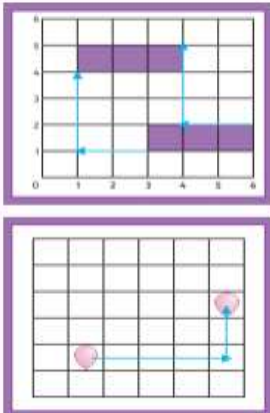
- | |
|--------------------------------------------------------|
| 1. Read the question. |
| 2. Identify the instruction of movement for the shape. |
| 3. Plot the points of movement (new coordinates). |
| 4. Draw the lines to make the sides of the shape. |
| 5. Write the new coordinates (if required). |

Recap:

Please watch my model video.

Maths Translation

In maths, translation is a sliding movement.




The rectangle has been translated
Left 2, Up 3.
It hasn't changed size or been rotated.

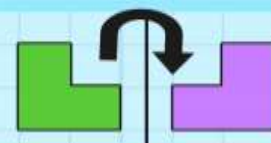
The balloon has been translated
Right 4, Up 2.
It hasn't changed size or been rotated.

Translation, Rotation and Reflection


Translation - Slide
The figure moves in a straight direction.



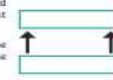
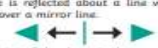






Reflection - Flip
A figure gives a mirror image.



Rotation - Turn
Moves a figure around a point.



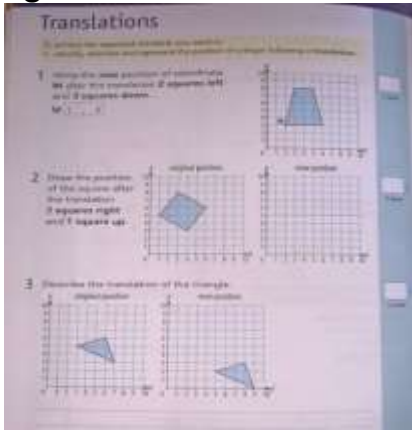
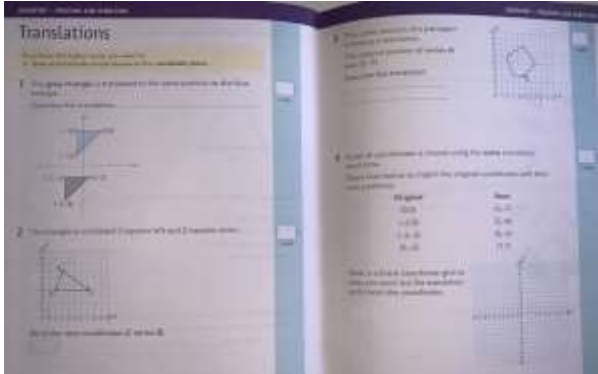
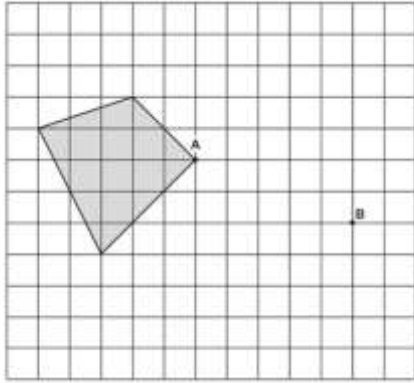
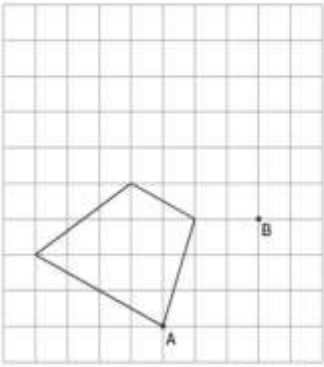
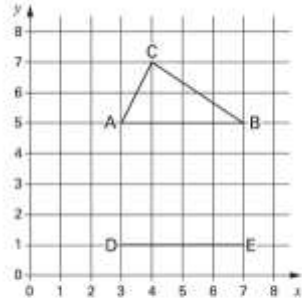
Reflection and Translation of Shapes Vocabulary

<p>Translate / Translation</p> <p>A shape is translated when it is moved without rotating or resizing. Every point of the shape moves the same distance in the same direction.</p> 	<p>Reflect / Reflection</p> <p>A shape is reflected about a line when it is flipped over a mirror line. Every point of the shape is the same distance from the mirror line as the same point on the reflected shape.</p> 
<p>Vertex / Vertices</p> <p>The corner of a shape is called a vertex. The plural is vertices. A triangle has 3 vertices.</p> 	<p>Point</p> <p>A point is an exact location. It has no size, only position. They are shown by dots or parts of a line, but they have no size.</p> 
<p>Axis / Axes</p> <p>A coordinate grid has axes. The x axis is horizontal. The y axis is vertical.</p> 	<p>Coordinates</p> <p>Coordinates mark the location of a point on a coordinate grid. The coordinates are written in brackets in the format (x,y) where x is how far along and y is how far up.</p> 
<p>Parallel</p> <p>Parallel lines are always the same distance apart and never touching.</p> 	<p>Perpendicular</p> <p>Perpendicular lines meet at a right angle.</p> 

Year 6 Maths

Main activity

Complete at least 2 columns, more if you can!

Task 1	Task 2	Task 3														
<p>SATs Book Activities Developing/ Expected Pg. 48 Translation</p>  <p>Greater Depth Pg. 48 – 49 Translation</p> 	<p>Arithmetic</p> <table border="1"> <tr><td style="background-color: #0070c0; color: white;">1</td><td>$485 + 100 =$</td></tr> <tr><td style="background-color: #0070c0; color: white;">2</td><td>$83 \times 0 =$</td></tr> <tr><td style="background-color: #0070c0; color: white;">3</td><td>$400 - 1 =$</td></tr> <tr><td style="background-color: #0070c0; color: white;">4</td><td>$593 + 1 =$</td></tr> <tr><td style="background-color: #0070c0; color: white;">5</td><td>$9 \times 5 \times 2 =$</td></tr> <tr><td style="background-color: #0070c0; color: white;">6</td><td>$7 \times 7 =$</td></tr> <tr><td style="background-color: #0070c0; color: white;">7</td><td>$60\,352 + 8793 =$</td></tr> </table>	1	$485 + 100 =$	2	$83 \times 0 =$	3	$400 - 1 =$	4	$593 + 1 =$	5	$9 \times 5 \times 2 =$	6	$7 \times 7 =$	7	$60\,352 + 8793 =$	<p>Problem Solving/ Reasoning</p> <p>Task 1</p> <p>Here is a shaded shape on a grid.</p> <p>The shape is translated so that point A moves to point B.</p> <p>Draw the shape in its new position.</p> <p>Use a ruler.</p>  <p>Task 2</p> <p>Here is a quadrilateral on a square grid.</p> <p>The quadrilateral is translated so that point A moves to point B.</p> <p>Draw the quadrilateral in its new position.</p> <p>Use a ruler.</p>  <p>Task 3</p> <p>Kyle has drawn triangle ABC on this grid.</p>  <p>Holly has started to draw an identical triangle DEF.</p> <p>What will be the coordinates of point F?</p> <div style="border: 1px solid black; width: 50px; height: 20px; margin-left: auto; margin-right: auto; display: flex; align-items: center; justify-content: center;"> (,) </div>
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