## Year 4 - Summer Block 6 - Position and Direction

## Step 3: Move on a Grid

Identify the coordinates for each point on the grid.


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## Varied Fluency 1

Translate the point 4 left and 3 up. Record the new coordinates.


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## Varied Fluency 2

True or False? Point A has been translated 3 right and 4 up to point B.


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True or False? Point A has been translated 3 right and 4 up to point B.


False.
A has been translated 3 left and 4 up.

## Varied Fluency 3

Point A has been translated 3 squares right and 5 squares down to point B. Record the original coordinates for point A.


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Point A has been translated 3 squares right and 5 squares down to point B. Record the original coordinates for point A.


## Problem Solving 1

Move one point to create the vertices for a square. Record the new coordinates.


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## Reasoning 1

Points are placed on the following coordinates:

$$
(7,5)(4,7)(5,4)
$$

Each of the points have been moved 2 squares in one direction and 2 squares in another.

What could the new coordinates be? Find 2 possibilities.

## Reasoning 1

Points are placed on the following coordinates:

$$
(7,5)(4,7)(5,4)
$$

Each of the points have been moved 2 squares in one direction and 3 squares in another.

What could the new coordinates be? Find 2 possibilities.
$(9,8),(6,10),(7,7)$ or $(5,2),(2,4),(3,1)$

## Reasoning 2

The point was moved 1 right and 2 up.
Greg thinks the original co-ordinates were (4, 4). Is he correct? Prove it.


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The point was moved 1 right and 2 up.
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Greg is incorrect because...


The point was moved 1 right and 2 up.
Greg thinks the original co-ordinates were (4, 4). Is he correct? Prove it.

Greg is incorrect because he has translated the point on the grid 1 right and 2 up to find the coordinates (4, 4). The original coordinates were $(2,0)$ which is 1 right and 2 up from (3, 2).


