

Homework/Extension

Step 3: Move on a Grid

National Curriculum Objectives:

Mathematics Year 4: (4P2) [Describe movements between positions as translations of a given unit to the left/right and up/down](#)

Mathematics Year 4: (4P3a) [Describe positions on a 2D grid as coordinates in the first quadrant](#)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Reverse a one-step translation to identify the original position, on a 5x5 grid with a 1:1 scale.

Expected Reverse a two-step translation to identify the original position, on a 10x10 grid with a 1:1 scale.

Greater Depth Reverse a two-step translation to identify the original position, on a 10x10 grid with varying scales.

Questions 2, 5 and 8 (Varied Fluency)

Developing Identify one-step translations of singular points from a given starting point, on a 5x5 grid with a 1:1 scale.

Expected Identify two-step translations of singular points from a given starting point, on a 10x10 grid with a 1:1 scale.

Greater Depth Identify two-step translations of singular points from a given starting point, on a 10x10 grid with varying scales,.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

Developing Identify, correct and explain errors made with one-step translations, on a 5x5 grid with a 1:1 scale.

Expected Identify, correct and explain errors made with two-step translations, on a 10x10 grid with a 1:1 scale.

Greater Depth Identify, correct and explain errors made with two-step translations, on a 10x10 grid with varying scales.

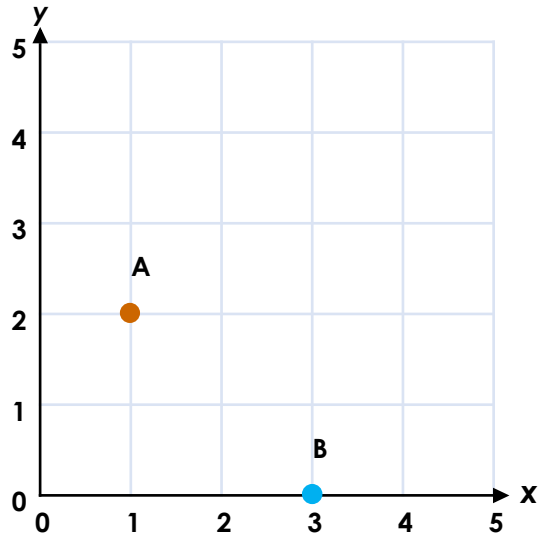
More [Year 4 Position and Direction](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Move on a Grid

1. Points A and B have been translated three down. Record their original coordinate positions in the table below.

Point	Original coordinates
A	(,)
B	(,)

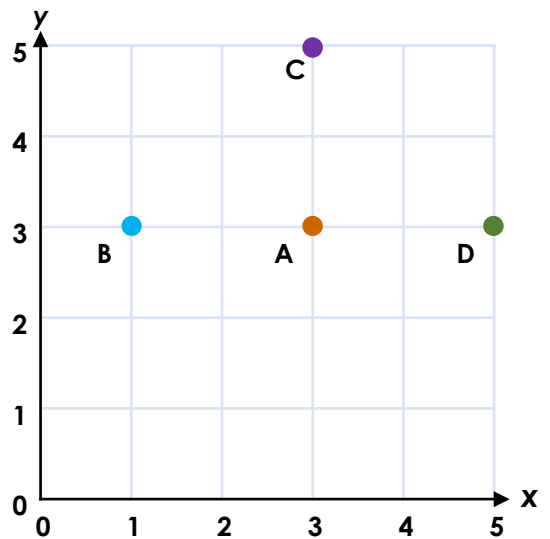


VF
HW/Ext

2. Which point has been translated 2 right from point A?

Complete the table to show how the other points have been translated from point A.

Point	Left/Right	Up/Down
B		
C		
D		



VF
HW/Ext

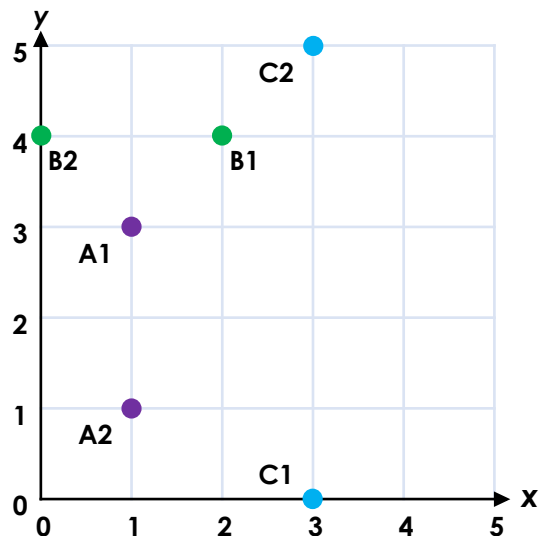
3. Sam has been translating points.

Translations

A1 to A2 3 down

B1 to B2 2 right

C1 to C2 5 up



Correct and explain any errors he has made.

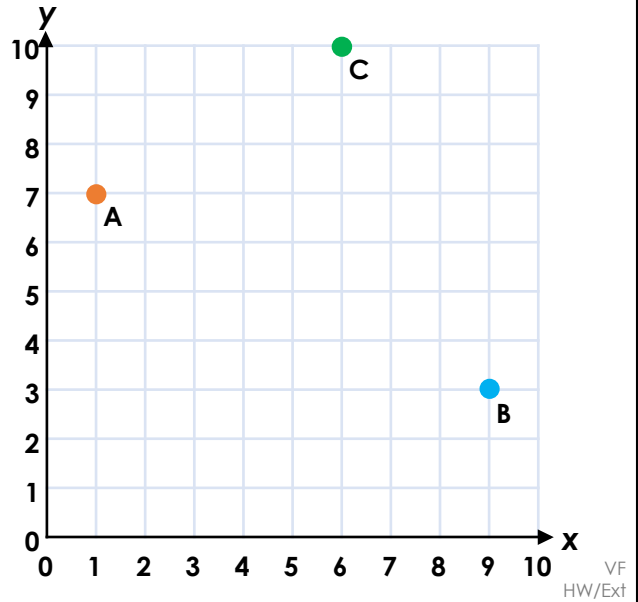


RPS
HW/Ext

Move on a Grid

4. Points A, B and C have been translated one right and two up. Record their original coordinate positions in the table below.

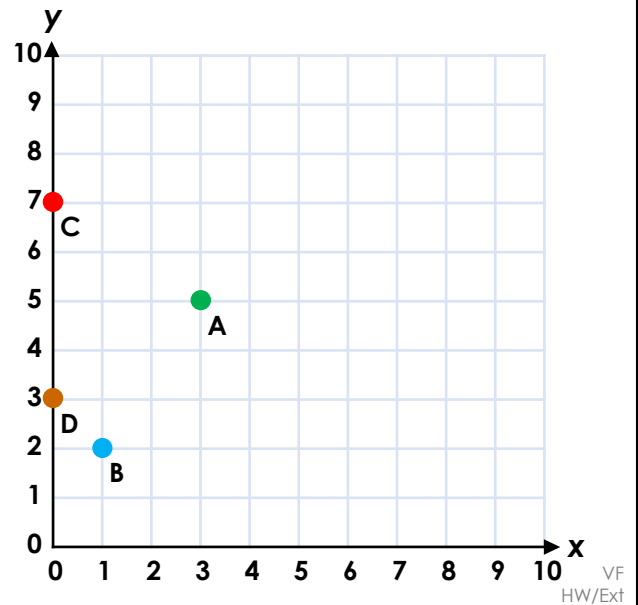
Point	Original coordinates
A	(,)
B	(,)
C	(,)



5. Which point has been translated 3 left and 2 down from point A?

Complete the table to show how the other points have been translated from point A.

Point	Left/Right	Up/Down
B		
C		
D		

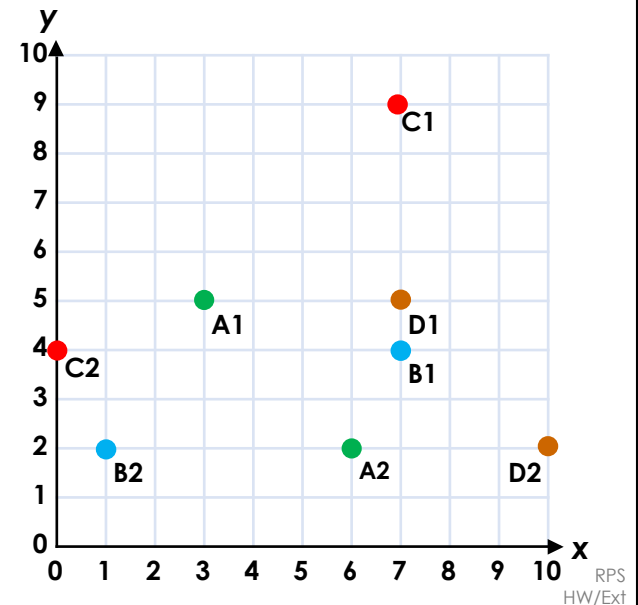


6. Lorna has been translating points.

Translations

A1 to A2	4 right	3 down
B1 to B2	6 left	2 down
C1 to C2	5 left	7 down
D1 to D2	3 right	3 up

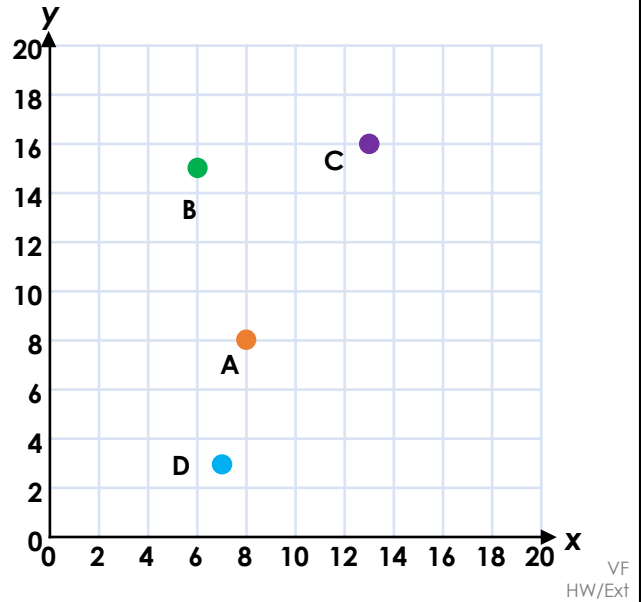
Correct and explain any errors she has made.



Move on a Grid

7. Points A, B, C and D have been translated six right and two up. Record their original coordinate positions in the table below.

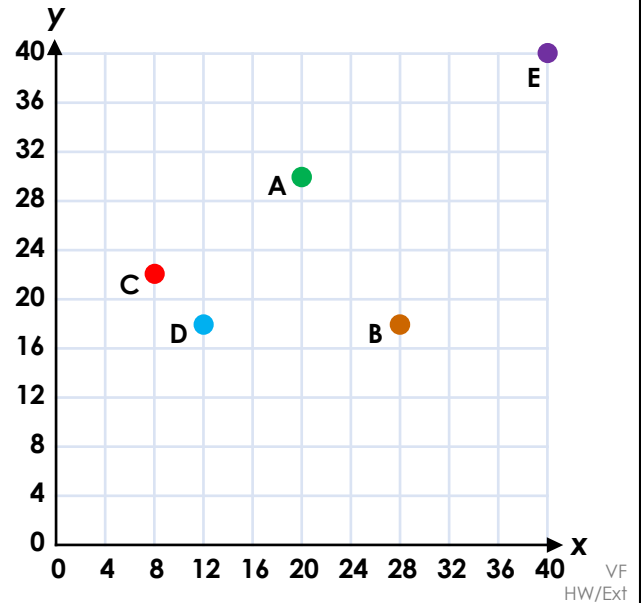
Point	Original coordinates
A	(,)
B	(,)
C	(,)
D	(,)



8. Which point has been translated 8 left and 12 down from point A?

Complete the table to show how the other points have been translated from point A.

Point	Left/Right	Up/Down
B		
C		
D		
E		

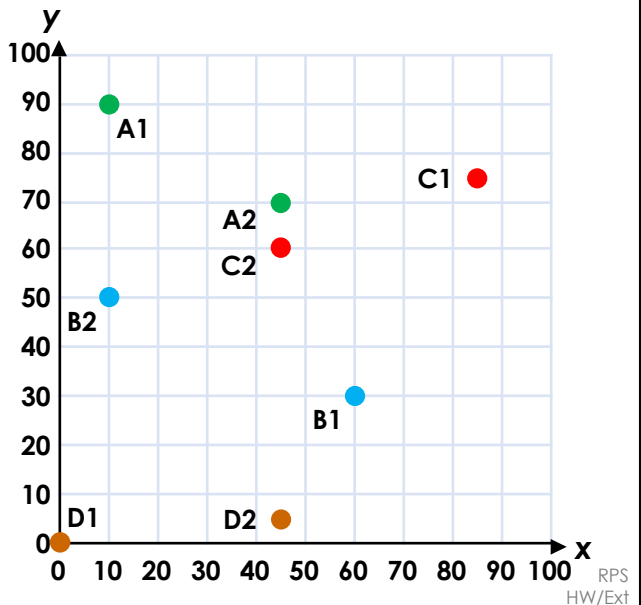


9. Luke has been translating points.

Translations

A1 to A2 35 right 20 down
 B1 to B2 50 left 25 up
 C1 to C2 15 left 40 down
 D1 to D2 45 right 5 up

Correct and explain any errors he has made.



Homework/Extension

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Developing

1. $A = (1, 5)$; $B = (3, 3)$
2. Point D. $B = 2$ left; $C = 2$ up
3. A is incorrect. Sam has translated the point 2 down instead of 3 down.
B is incorrect. Sam has translated the point 2 left instead of 2 right.

Expected

4. $A = (0, 5)$; $B = (8, 1)$; $C = (5, 8)$
5. Point D. $B = 2$ left, 3 down; $C = 3$ left, 2 up
6. A is incorrect. Lorna has translated the point 3 right instead of 4 right.
C is incorrect. Lorna has translated the point 7 left and 5 down, not 5 left and 7 down.
D is incorrect. Lorna has translated the point 3 down instead of 3 up.

Greater Depth

7. $A = (2, 6)$; $B = (0, 13)$; $C = (7, 14)$; $D = (1, 1)$
8. Point D. $B = 8$ right, 12 down; $C = 12$ left, 8 down, $E = 20$ right, 10 up
9. B is incorrect. Luke has translated the point 20 up instead of 25 up.
C is incorrect. Luke has translated the point 40 left and 15 down, not 15 left and 40 down.