

Worked Examples

Position and Direction

Year 4

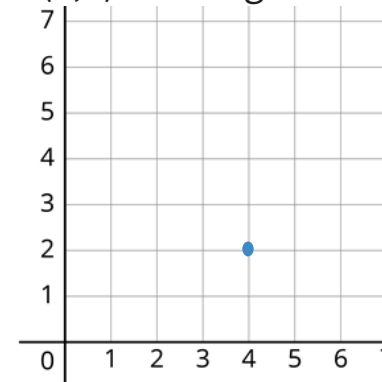
Instructions

A pupil has been given a set of questions to answer. They tried their best but think they have got some answers wrong.

Go through the work and check the answers. Help the pupil to understand their errors by explaining where they have gone wrong or how to find the correct answer (there are prompts below the questions to help you).

Note that you will not always be asked to provide the correct answer.

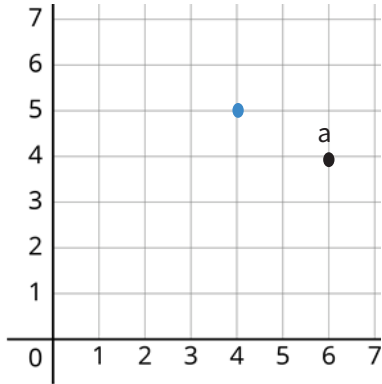
1 Plot the point (2,4) on the grid.



This answer is: ☐ Correct ☐ Incorrect

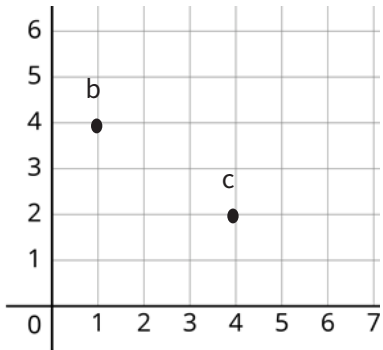
Explain how to plot coordinates.

2 Translate point a 3 left and 2 up.



This answer is: ☐ Correct ☐ Incorrect
Explain how to translate a point.

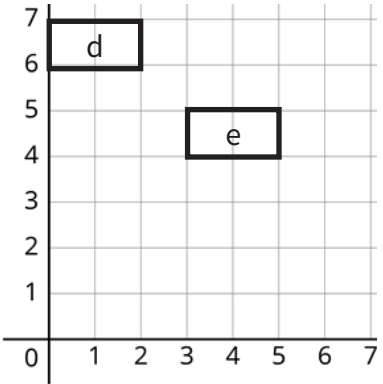
3 Point b has moved to point c. Describe the translation.



3 right and 2 down

This answer is: ☐ Correct ☐ Incorrect
Prove this answer is correct/ incorrect.

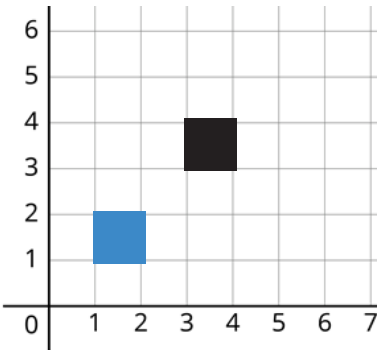
4 The rectangle has moved from point d to point e. Describe the translation.



5 right and 2 down

This answer is: ☐ Correct ☐ Incorrect
If incorrect, explain the error.

5 Translate the square 2 right and 2 down.



This answer is: ☐ Correct ☐ Incorrect
If incorrect, what should the answer be? Explain.

Answers

Q no.	Question	Correct/ Incorrect	Error/ Additional Guidance
1	Plot the point (2,4) on the grid. (4,2) plotted.	Incorrect	The pupil has plotted the y-axis before the x-axis. It is important that the pupil knows they always start with the x-axis, especially when they begin to use four quadrant grids. Correct answer – 2 along the x-axis and 4 up the y-axis.
2	Translate point a 3 left and 2 up. New coordinates (4,5)	Incorrect	The pupil has included the starting point in their translation. When translating shapes, the starting point should not be included as the point or shape has not begun to move. Correct final coordinates – (3,6)
3	Point b has moved to point c. Describe the translation. 3 right and 2 down	Correct	The pupil has correctly translated point b to point c. Pupils could get confused when translating points and shapes such as this as they could reverse the instructions.
4	The rectangle has moved from point d to point e. Describe the translation. 5 right and 2 down	Incorrect	The pupil has attempted to identify the translation by moving a single point. They have focused on (0,6) or (0,7) but have moved them to points (5,4) or (5,5) instead of lining them up with the correct positions on shape 'e'. Correct answer - 3 right and 2 down.
5	Translate the square 2 right and 2 down. (see question)	Incorrect	The pupil has moved the square left instead of right. If a pupil struggles with directional language (specifically right and left) translation will be challenging. Correct answer – the square blue should be four squares to the right.