Monday 8th June Maths Y4

Good morning Year 4s, I hope you had a great weekend.

Today, you are going to learn how to translate (or move) move images, shapes and points on a co-ordinate grid following specific directions using language such as: left/right and up/down.

You will need to think about what you already know about coordinates and REMEMBER to plot a point, go 'along the corridor then up the stairs' (left or right first followed by up or down. When you move or 'translate' you also start with the left/right translation followed by the up/down translation.

Try these practise questions first then complete the problem solving and reasoning questions. Then draw a quadrilateral on a grid and translate all the vertices 4 to the right and 2 up. Don't forget to label the axis carefully and use a ruler! Good luck!

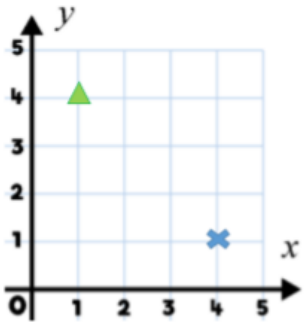
Varied Fluency

1 Write the co-ordinates for each shape:

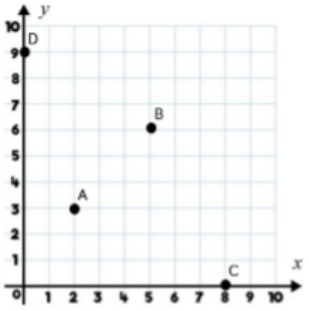
= (__ , __) = (__ , __)

= (__ , __) = (__ , __)

2 Translate ▲ 2 right and 3 down.
Record the co-ordinates before (__ , __)
and after (__ , __)
Translate ✖ 3 left and 2 up.
Record the co-ordinates before (__ , __)
and after (__ , __)



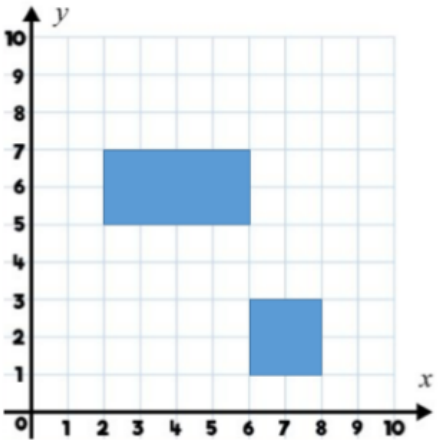
3 Translate A 6 right and 3 down.
Record the co-ordinates before (__ , __)
and after (__ , __)
Translate B and C 4 left and 3 up.
Record the co-ordinates before (__ , __)
and after (__ , __)



Move on a Grid

Reasoning and Problem S

Translate the rectangle 2 left and 3 up.
Record the co-ordinates of each vertices for the rectangle before and after the translation.



The square has already been translated 3 right and 5 down.
Record the new and original co-ordinates of each vertices for square.

Points have been placed on the following co-ordinates:

(0,4) (4,0) (7,2) (2,7)

Each point is translated in the same way. They are each translated 4 right and 7 up. What would the new co-ordinates be?

Write a question similar to this for your partner.

Answers

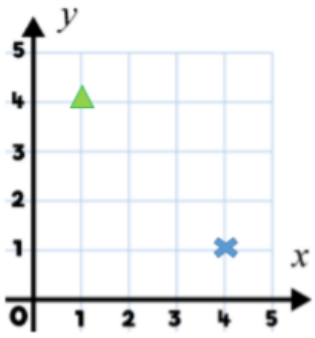
Varied Fluency

1 Write the co-ordinates for each shape:

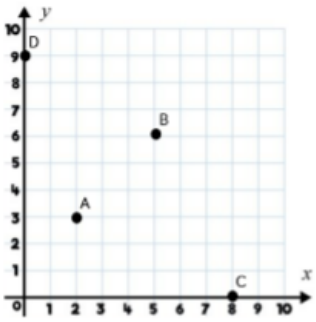
♥ = (2, 2) ✖ = (4, 3)

▲ = (2, 4) ☺ = (1, 1)

2 Translate ▲ 2 right and 3 down.
Record the co-ordinates before (1, 4)
and after (3, 1)
Translate ✖ 3 left and 2 up.
Record the co-ordinates before (4, 1)
and after (1, 3)



3 Translate A 6 right and 3 down.
Record the co-ordinates before (2, 3)
and after (8, 0)
Translate B and C 4 left and 3 up.
Record the co-ordinates before (__ , __)
and after (__ , __)



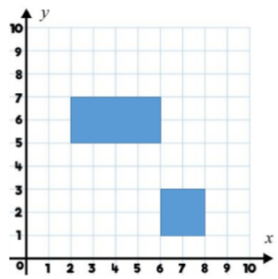
B before (5 , 6) after (1 , 9)

C before (8 , 0) after (4 , 3)

Move on a Grid

Reasoning and Problem Solving

Translate the rectangle 2 left and 3 up.
Record the co-ordinates of each vertices for the rectangle before and after the translation.



The square has already been translated 3 right and 5 down.
Record the new and original co-ordinates of each vertices for square.

Answer:
Before:
(2,5) (2,7) (6,5) (6,7)
After:
(0,8) (0,10) (4,8) (4,10)

New:
(6,1) (6,3) (8,1) (8,3)
Original:
(3,6) (3,8) (5,6) (5,8)

Points have been placed on the following co-ordinates:

(0,4) (4,0) (7,2) (2,7)

Each point is translated in the same way. They are each translated 4 right and 7 up. What would the new co-ordinates be?

Write a question similar to this for your partner.

Answer:
(4,11) (8,7) (11,9) (6,14)