Thursday 30th

Transformations

Translation with coordinates

Warm up

TTRockstars

Practice your recall using the garage area.

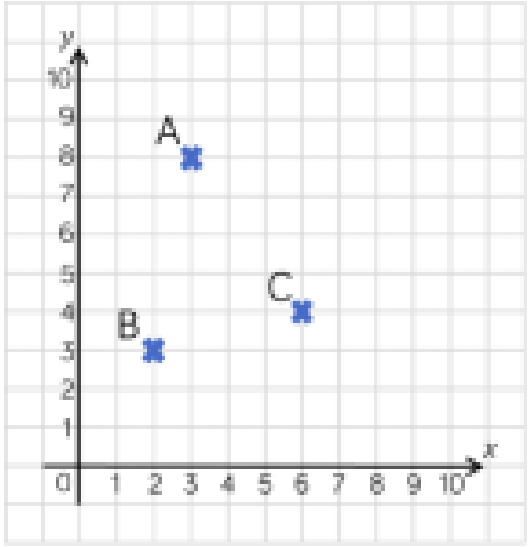
Please challenge another year 5 (or two) to a mini-battle. To do this go to ‘Rockslam’ and scroll down a little. Choose from the classes who you would like to challenge. You could also challenge a teacher!!!!

Re-cap

Remind yourself of the correct way to read and plot coordinates (you can look back at Monday's PPT/videos or the reminders you discussed and wrote down in your book at the end of Monday's lesson)

Task 1 Q1

Translate each coordinate 2 down, 1 right. Record the coordinates of its new position.



	Before translation	After translation
A	(3, 8)	
B		
C		

Is there a link between the before and after coordinates?

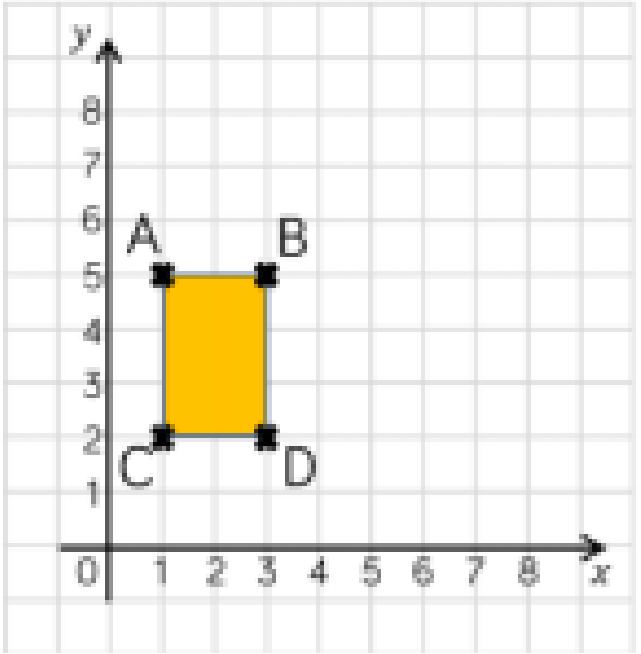
Task 1 Q1 - answers

	Before Translation	After Translation
A	(3, 8)	(4, 6)
B	(2, 3)	(3, 1)
C	(6, 4)	(7, 2)

The link is you add one to the first coordinate and take away two from the second coordinate

Task 1 Q2

Rectangle ABCD is translated so vertex C is translated to (3, 5). Describe the translation. What are the coordinates of the other vertices of the translated rectangle?



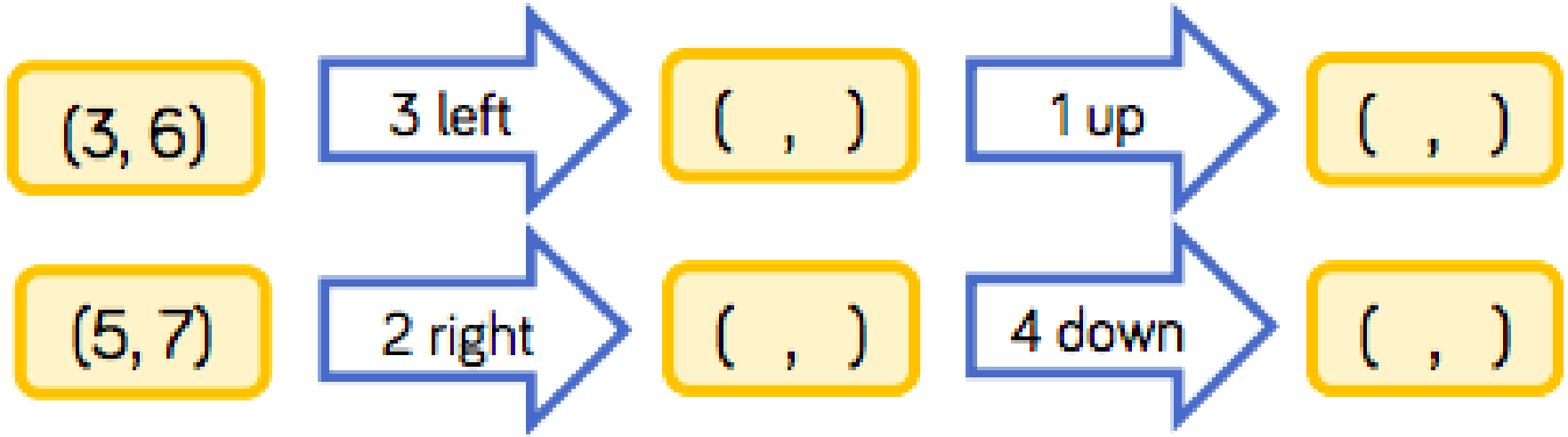
Task 1 Q2 - answers

The translation can be described as 2 right 3 up

A is (3, 8)
B is (5, 8)
C is (3, 5)
D is (5, 5)

Task 1 Q3

Translate the coordinates below.



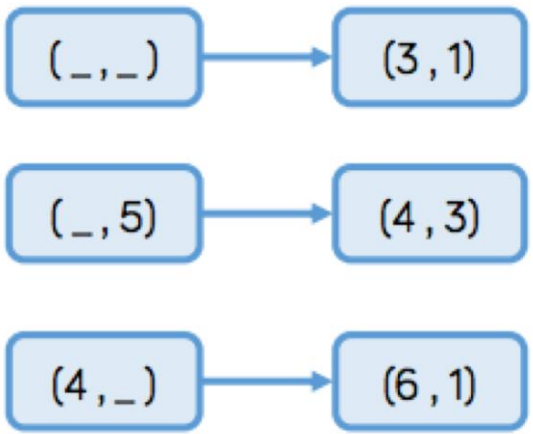
Task 1 Q3 - answers

(6, 6) and (6, 7)

(7, 7) and (7, 3)

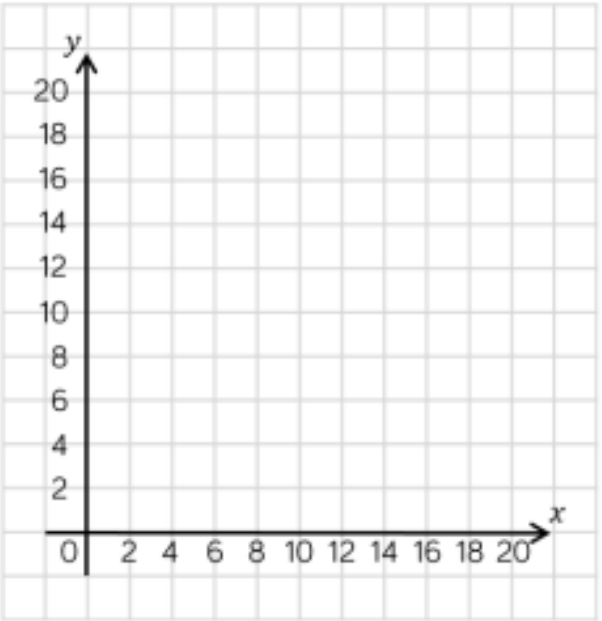
Task 2 – Problem Solving

These three coordinates have all been translated in the same way.



Can you work out the missing coordinates?

Describe the translation.



A rectangle is translated two to the left and 4 up.

Three of the coordinates of the translated rectangle are: (6, 8) (10, 14) and (10, 8).

What are the coordinates of the original rectangle?

Task 2 - answers

These three coordinates have all been translated in the same way.

(_ , _) → (3 , 1)

(_ , 5) → (4 , 3)

(4 , _) → (6 , 1)

Can you work out the missing coordinates?

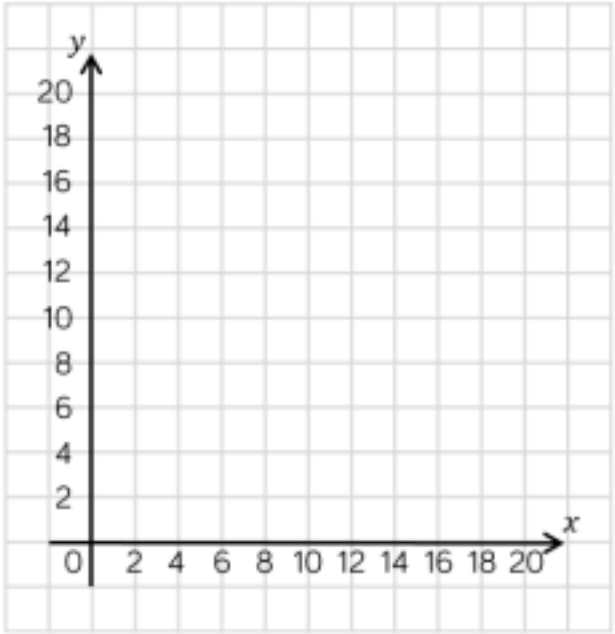
Describe the translation.

Translation 2 right 2 down.

(1 , 3) → (3 , 1)

(2 , 5) → (4 , 3)

(4 , 3) → (6 , 1)



A rectangle is translated two to the left and 4 up.

Three of the coordinates of the translated rectangle are: (6, 8) (10, 14) and (10, 8).

What are the coordinates of the original rectangle?

(8, 10) (12, 10)

(8, 4) (12, 4)

Challenge

If you want a tough challenge look at and work through some or all of the activities in the Translation – diving into mastery PPT

This is a challenge so don’t be disheartened if you feel you can’t complete it. It has three levels of challenge so have a look and let your teacher know how you get on.