CVPS Home Learning
WC: 27.04.20
Please write all answers / questions in your distance/home learning journals. Remember to email your work to your class teacher.

YEAR 5 Mathematics

Click on the lesson you would like to complete today.

LESSON 1
LESSON 2
LESSON 3
LESSON 4
LESSON 5

This week we are learning about translation. We will build upon our knowledge from Year 4 and challenge ourselves throughout the week.

Word of the day: Coordinates

Lesson 1: An introduction to Translations

- Transformations are a way of changing the size or position of a shape. In today's lesson we will be exploring coordinates and translations. Some of today's lesson should be familiar as it is revision of what you learnt in Year 4.
- Click here and complete the pre lesson quiz and follow the instructions on the screen.
- You will find a copy of the independent task, as referred to in the video, and additional challenges.

Independent Task

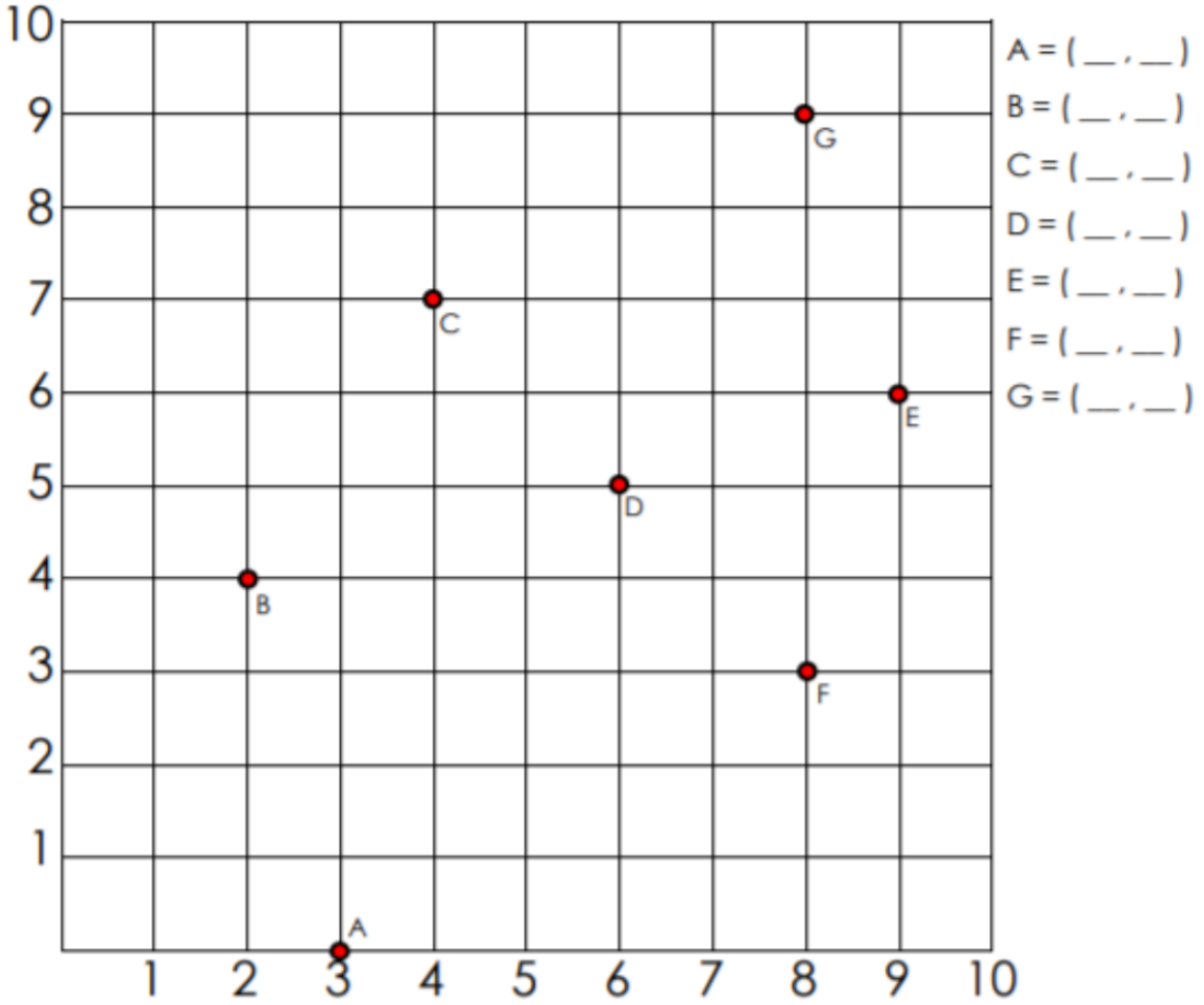
Task 1 - Coordinates

Write the coordinates of each point.

Task 2 - Translation

Write the translations that have taken place using the sentence stem.

Point ___ is translated ____ units up/down/left/right.



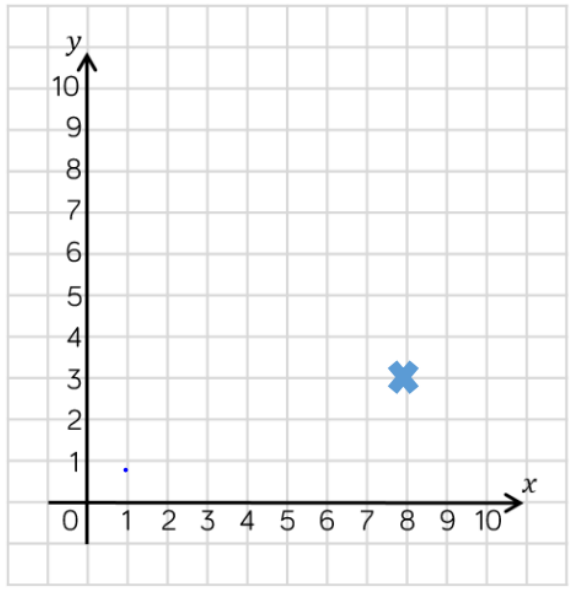
A to B = _____ E to F = _____

B to C = _____ F to C = _____

C to E = _____ B to G = _____

Lesson 1: Challenge

a)



The point is at (8, 3)

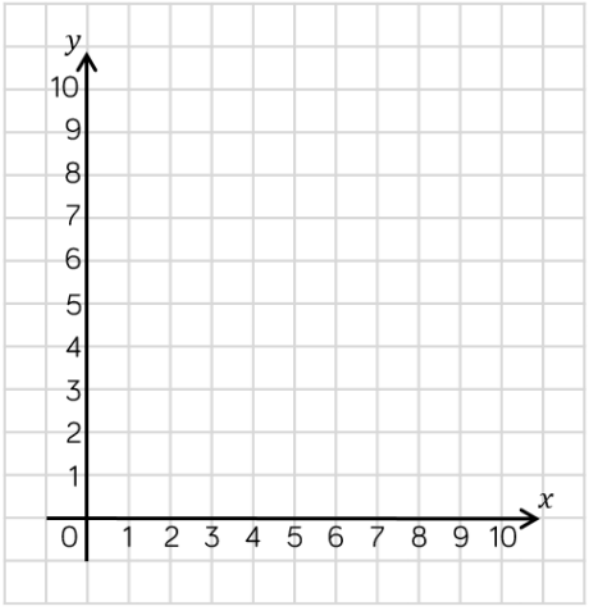
Mo

The point is at (3, 8)

Alex

Who do you agree with? Can you spot the mistake the other child has made?

b)



Annie is finding co-ordinates where the x-coordinate and the y-coordinate add up to 8.

For example: (3, 5) $3 + 5 = 8$

Find all of Annie's coordinates and plot them on the grid. What do you notice?

Now do the same for a different total.

Word of the day: vertices

Lesson 2: Describing Translations

- In lesson 2 of our study of transformations we will be developing our knowledge of translations. We will build on yesterday's work, where we focused on just one coordinate moving, to looking at moving all four vertices of a shape. By the end of this lesson you will be able to describe how a shape has been translated from one place to another.
- Click here and complete the pre lesson quiz and follow the instructions on the screen.
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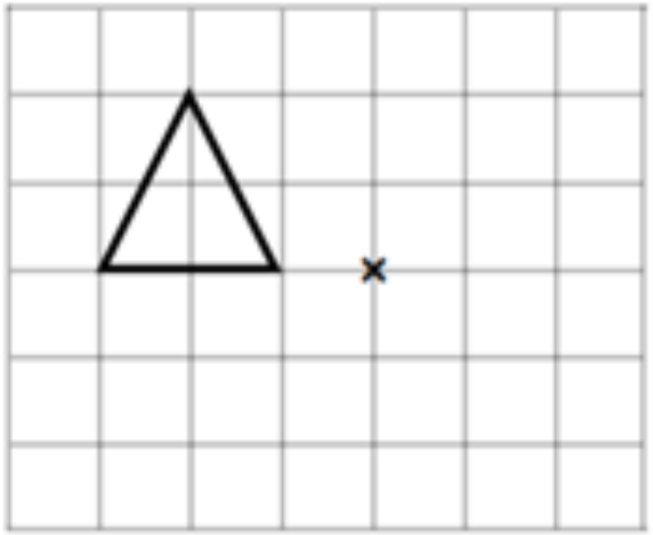
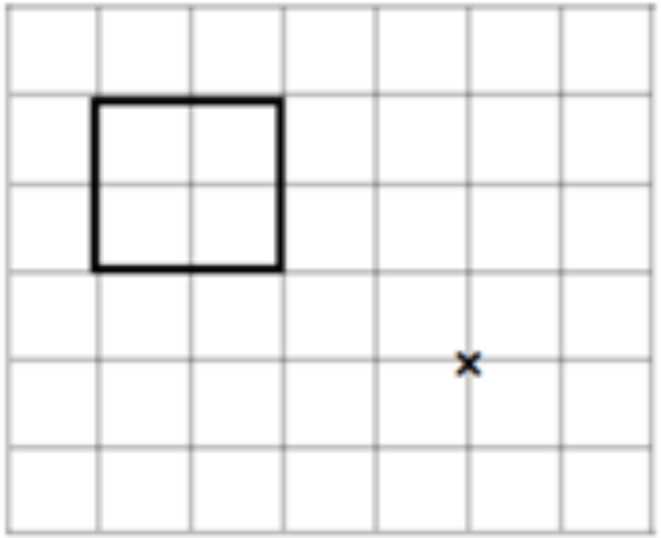
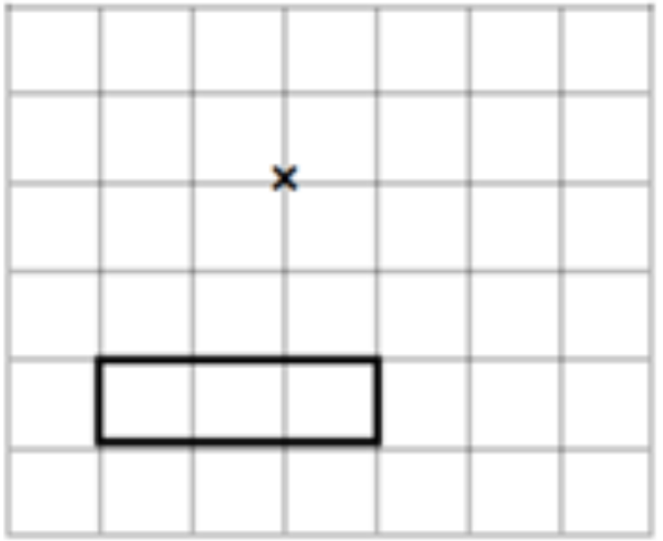
Independent Task

These shapes has been translated and one vertex ends up on the point marked. Describe the possible translations.

You may want to label each vertex:
"Bottom right vertex" "Bottom Right Vertex".







"The _____has moved ___ units _____."

Lesson 2: Challenge

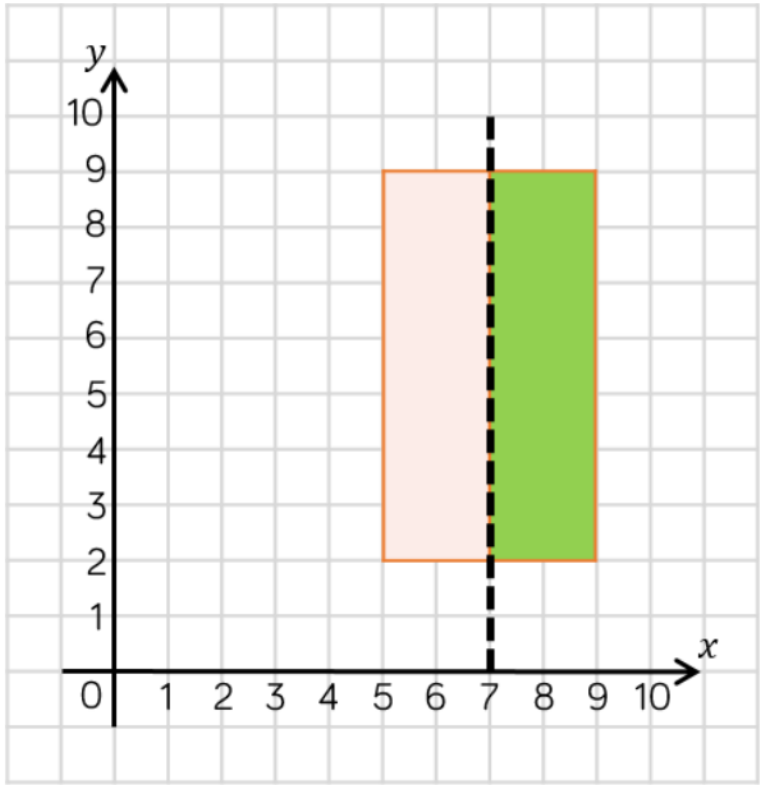
a)

When you reflect a shape, its dimensions change.

Dora

Do you agree with Dora?
Explain your thinking.

b)



The rectangle is pink and green.
The rectangle is reflected in the mirror line.
What would its reflection look like?

Word of the day: translate

Lesson 3: Describing positions and coordinates

- In this lesson, we will be building on the knowledge that we have acquired so far. Using the coordinates work we start in lesson 1 and the translation of shapes in lesson 2, we will be plotting, translating and re-plotting lines on a grid.
- Click here and complete the pre lesson quiz and follow the instructions on the screen.
- You will find a copy of the independent task, as referred to in the video, and additional challenges.

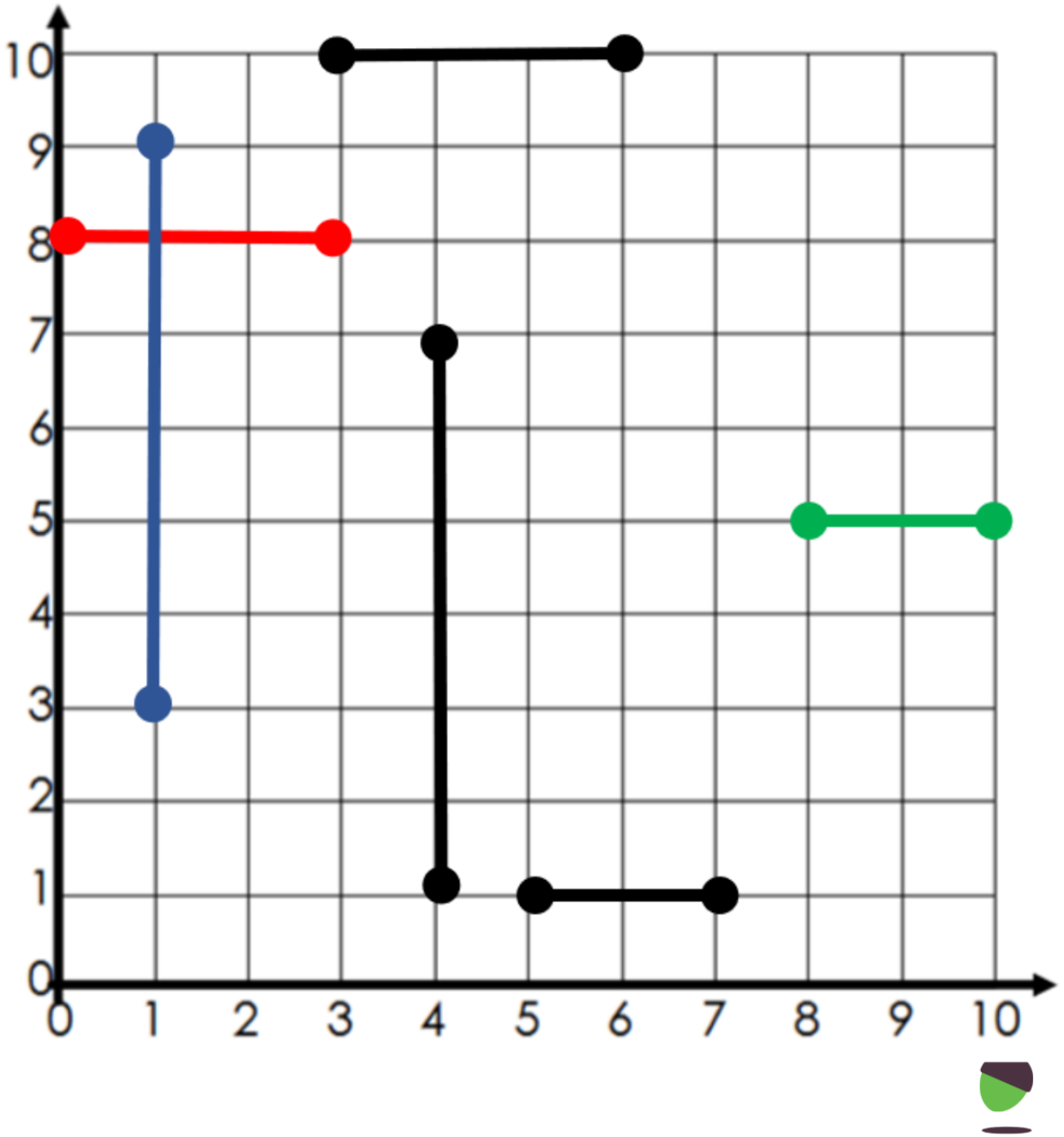
Independent Task

Task 1

Using coordinates, can you describe how the black line has been translated to the coloured line?

Black to Red Black to Blue Black to Green

“The _____ line has the coordinates _____ and _____. If I translate it _____the new coordinates will be _____

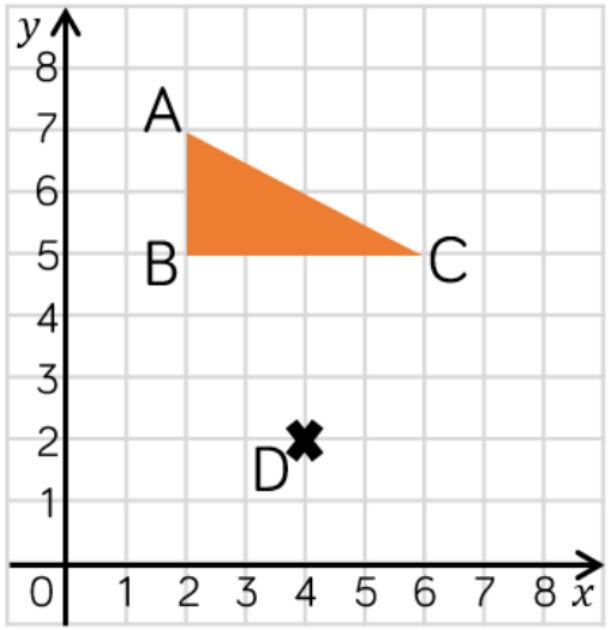


Task 2: Challenge

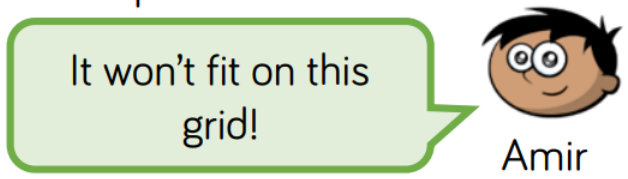
What do you notice happens to the Y coordinate when you move just left or right?

Lesson 3: Challenge

a)

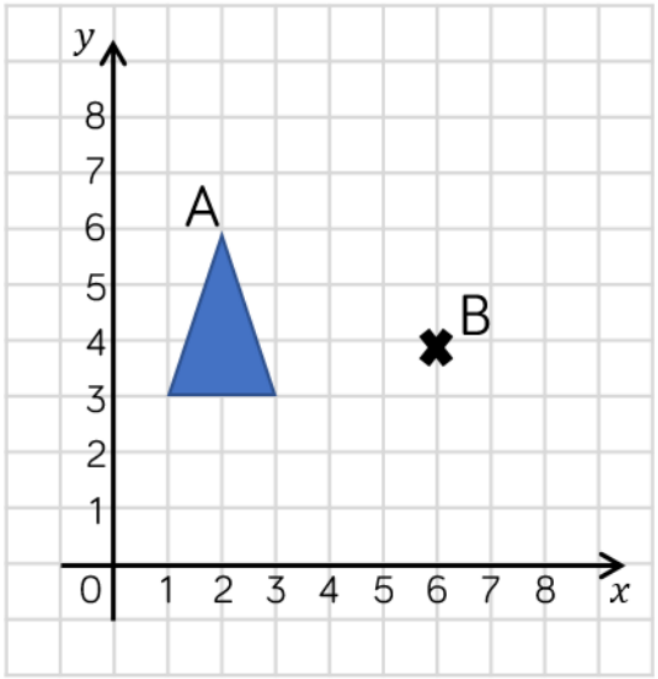


Triangle ABC is translated so that point B translates to point D



Do you agree with Amir?
Explain your thinking.

b)



A triangle is drawn on the grid.
It is translated so that point A translates to point B.

What would be the coordinates of the other vertices of the translated triangle?

Word of the day: quadrant

Lesson 4: Describe position after translation

- In this lesson we will be looking at plotting coordinates on a grid with four quadrants. We will link this to our prior learning about translation by translating one coordinate in multiple ways and working out the coordinates.
- Click here and complete the pre lesson quiz and follow the instructions on the screen.
- You will find a copy of the independent task, as referred to in the video, and additional challenges.

Independent Task

Task 1

The blue dot is at (1, 2).

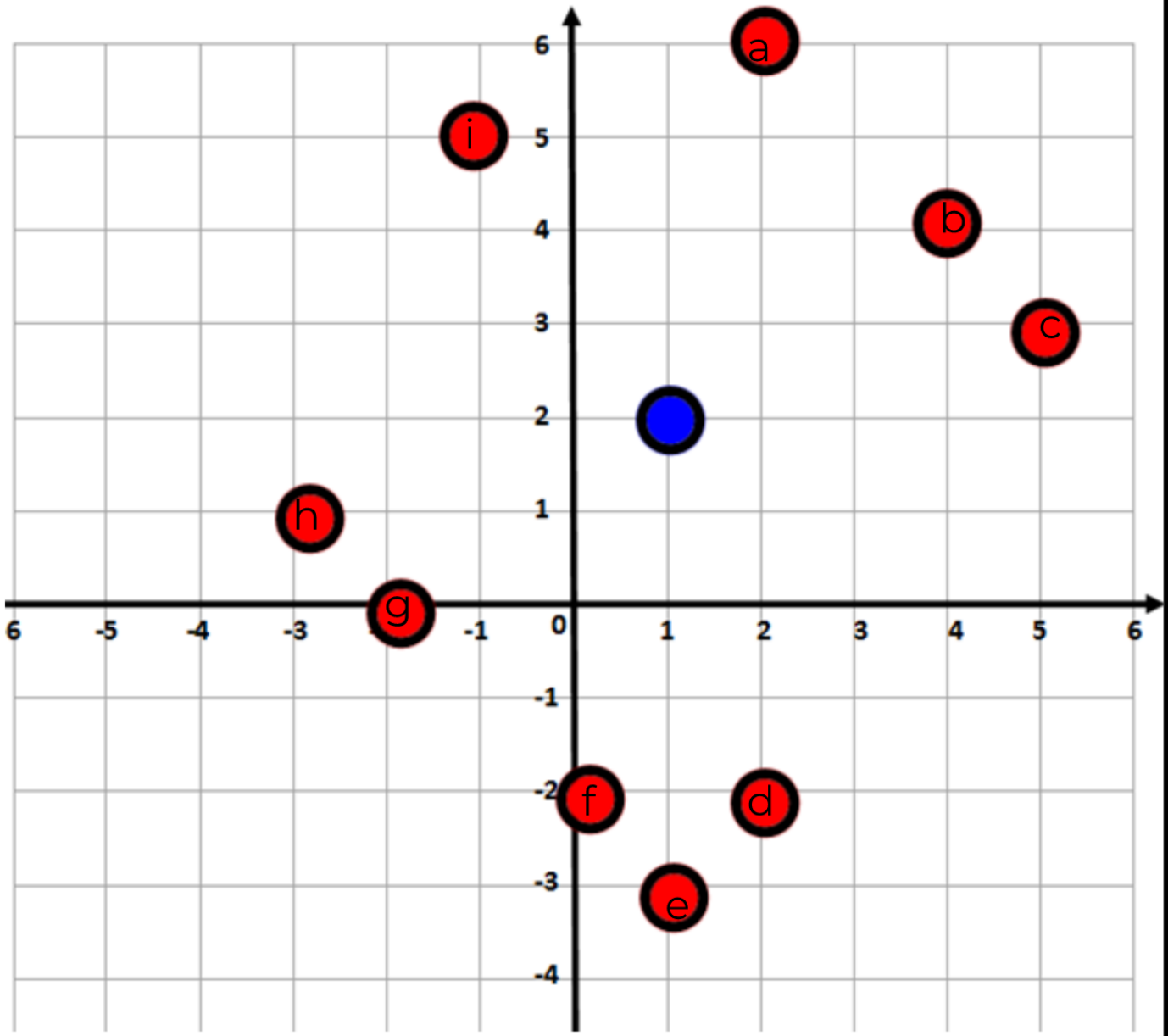
Each of the red dots have been **translated 5 units.**

Some are missing

1. What are the new coordinates of points a-i?

2. Where are the missing translations?

3. What are there coordinates?



Lesson 4: Challenge

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

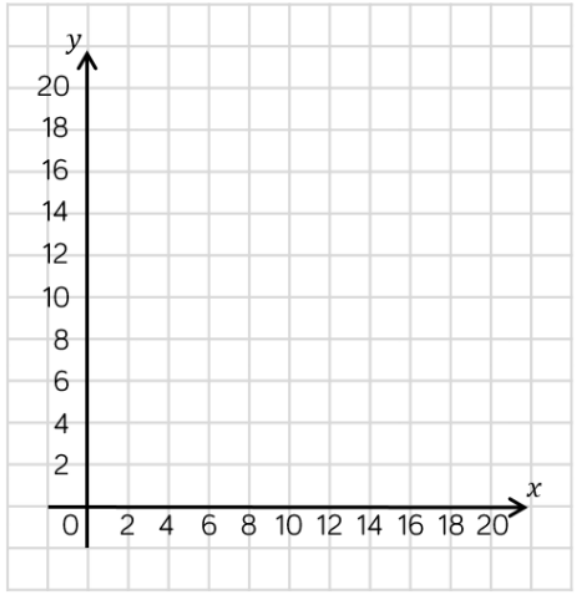
(_ , _) → (3 , 1)

(_ , 5) → (4 , 3)

(4 , _) → (6 , 1)

Can you work out the missing coordinates?

Describe the translation.



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?

Word of the day: congruent

Lesson 5: Describe position after translation

- In today's lesson, we will be exploring translating more than one coordinate across a grid with negative numbers.
- Click here and complete the pre lesson quiz and follow the instructions on the screen.
- You will find a copy of the independent task, as referred to in the video, and additional challenges.

Independent Task

Task 1

Write down the coordinates for each vertex of heptagon.

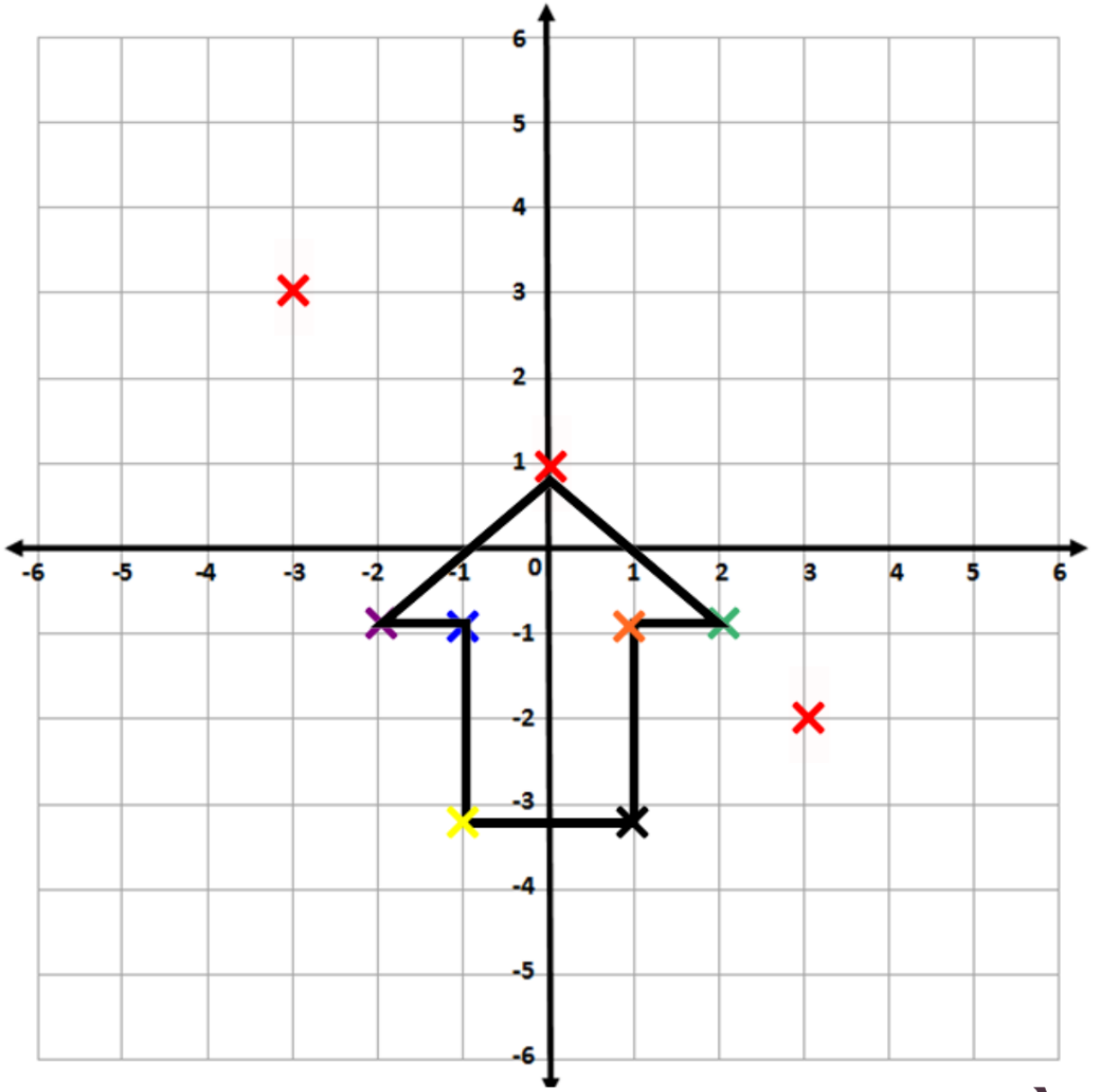
Red Green Orange

Black Yellow Blue

Purple

Task 2

Work out the translation which has happened for the red x to have translated to the two new points.

Task 3 - Challenge

Write down the coordinates for each vertex of two new heptagon.