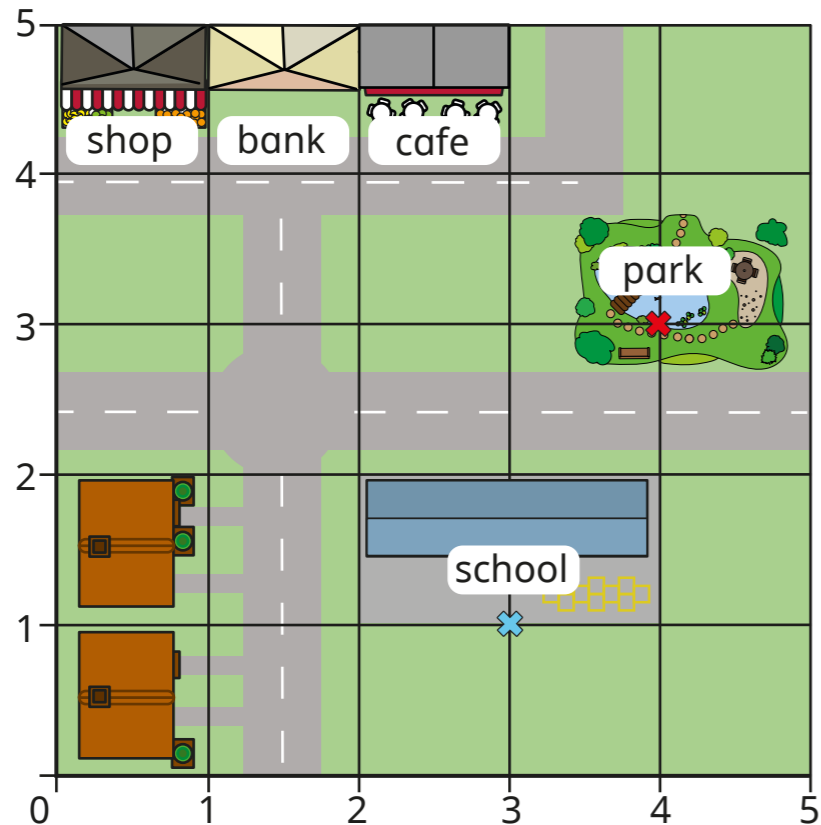


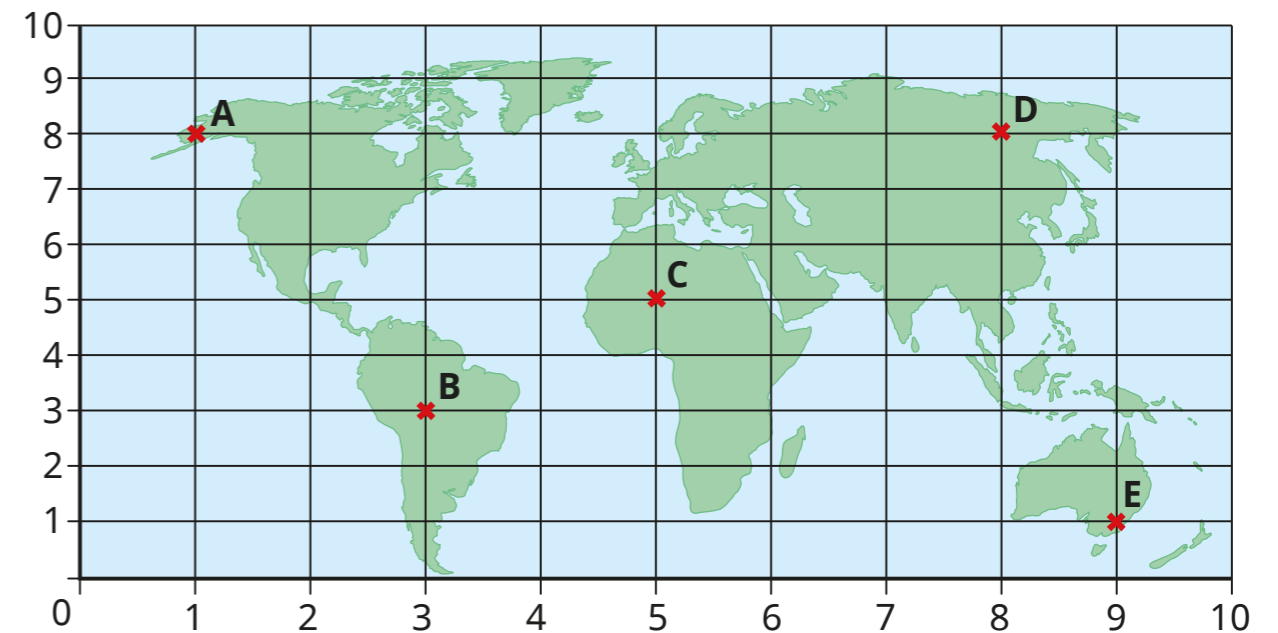
# Describe translation on a grid

1 Here is a map of part of a town.



- a) Ron is standing at (1, 1).  
He walks to the school gates at point (3, 1).  
Complete the sentence to describe his journey.  
Ron walks  squares to the right.
- b) Rosie is standing at (4, 0).  
She walks to the slide in the park at point (4, 3).  
Complete the sentence to describe her journey.  
Rosie walks  squares up.
- c) Annie is at (5, 5) and wants to walk to the slide in the park.  
What route could she take to get there?

2 A map of the world is shown on the grid.

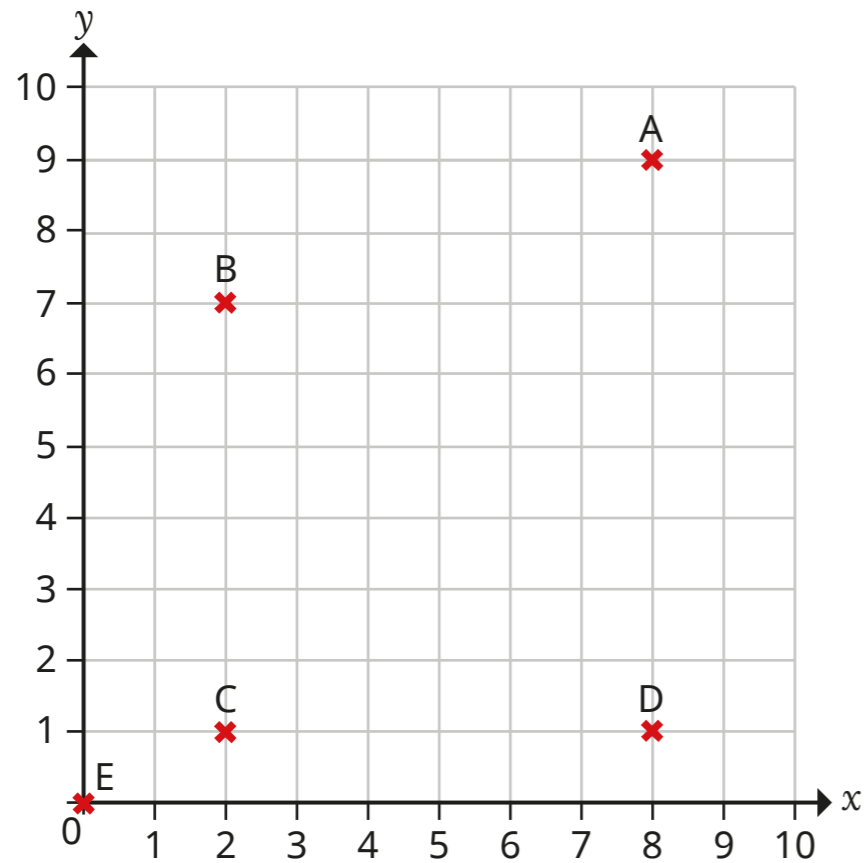


Complete the sentences to describe the movement of the planes.

- a) Plane 1 flies from A to D.  
Plane 1 flies  right.
- b) Plane 2 flies from A to B.  
Plane 2 flies  right and  down.
- c) Plane 3 flies from C to D.  
Plane 3 flies  right and  up.
- d) Plane 4 flies from E to D.  
Plane 4 flies  left and  up.



3 Five points are shown on the grid.



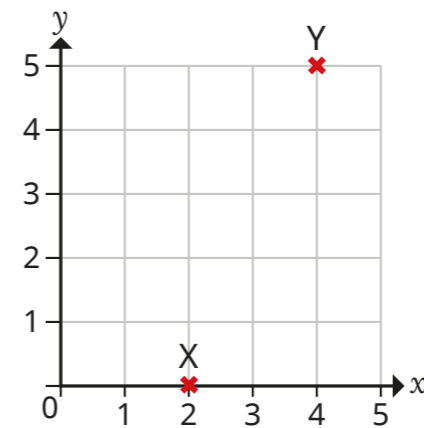
Complete the sentences to describe the translations.

- a) C to D is a translation  squares right.
- b) A to D is a translation  squares down.
- c) E to C is a translation  squares right and  square up.
- d) C to A is a translation  squares \_\_\_\_\_ and  squares \_\_\_\_\_
- e) A to B is a translation  squares \_\_\_\_\_ and  squares \_\_\_\_\_

How many other translations can you describe from the grid?



4 Two points, X and Y, are shown on the grid.

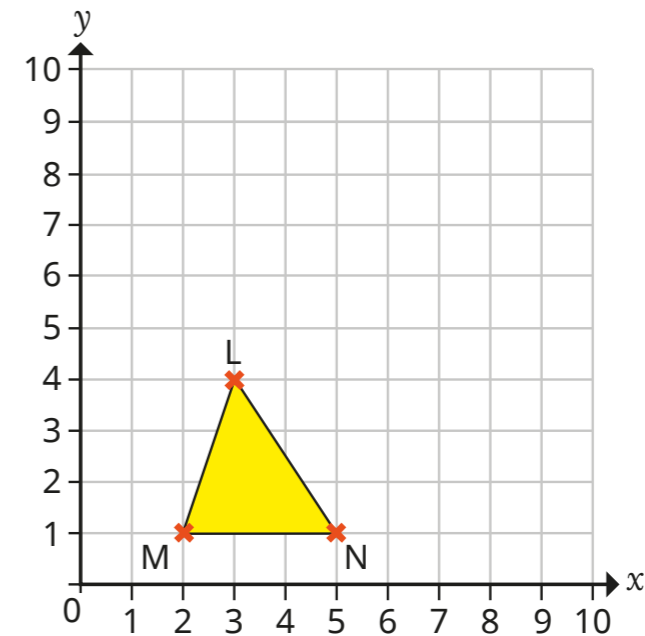


- a) Describe the translation from X to Y.  
\_\_\_\_\_
- b) Describe the translation from Y to X.  
\_\_\_\_\_

What do you notice? Does this always happen?

5 A triangle is drawn on the grid.

It is translated so that the vertex M moves to (7, 4).



- a) Describe the translation.  
\_\_\_\_\_
- b) Draw the translated triangle on the grid to show its new position.  
Create your own problem like this for a partner.

