

Mathematics

Transformations: Translations

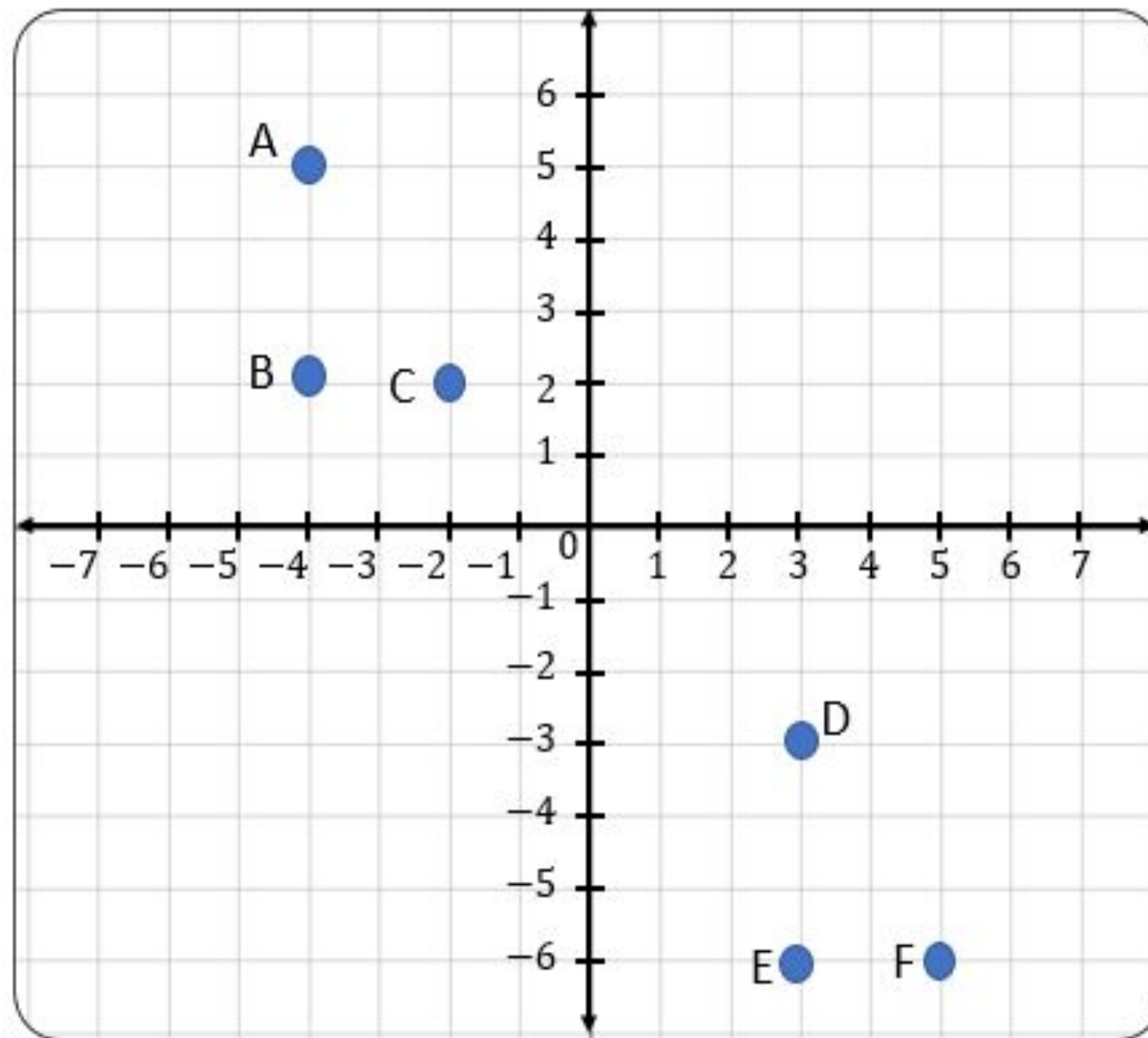
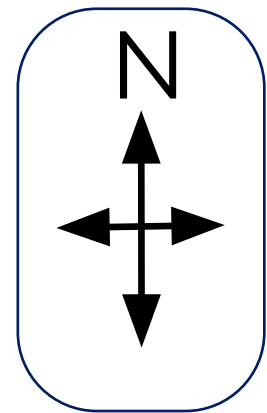
Worksheet

Mrs Buckmire



Try this

Find the co-ordinates of the points then use the code to describe journeys between two points:



Code:

<north(__)>

<south(__)>

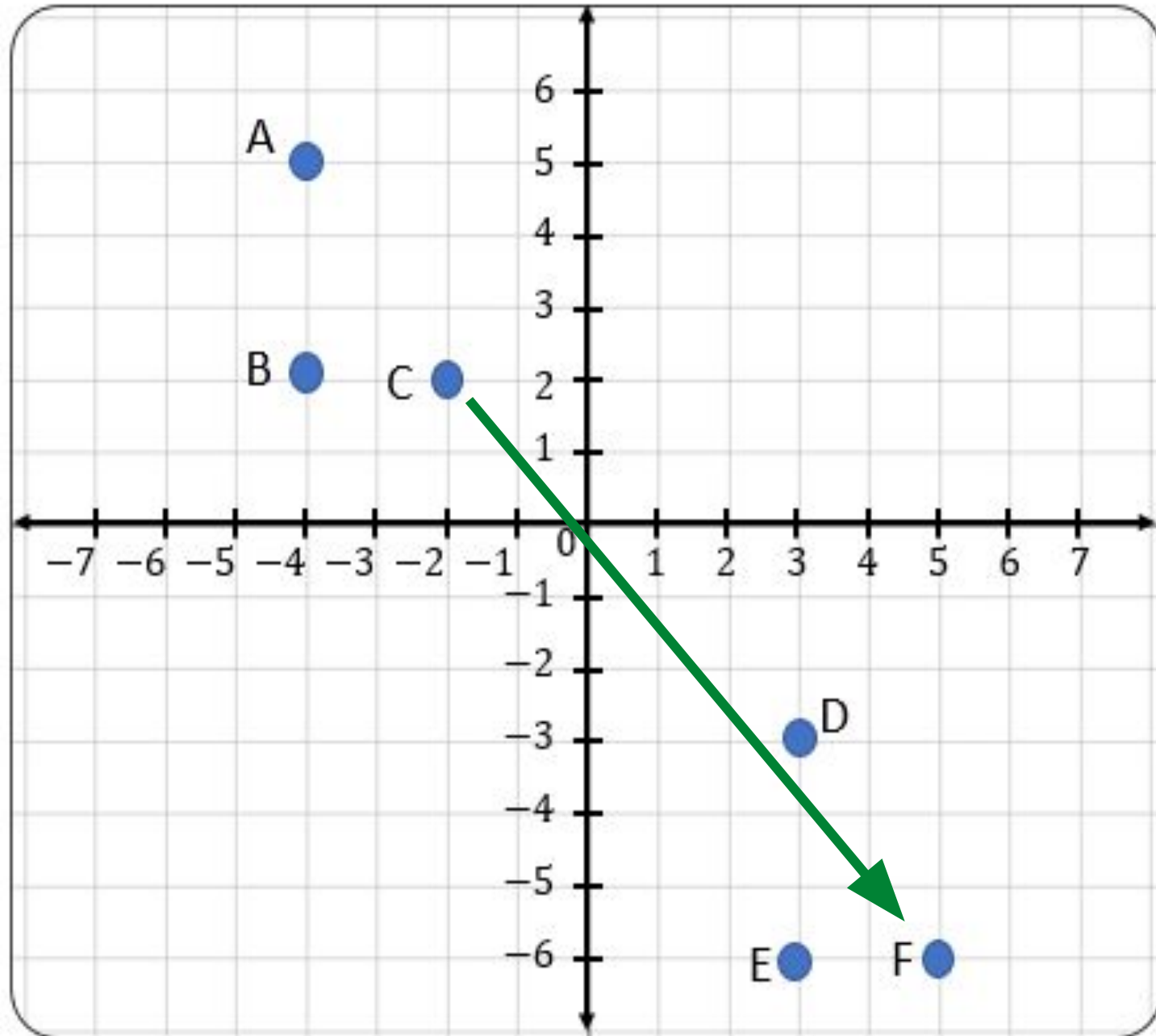
<east(__)>

<west(__)>

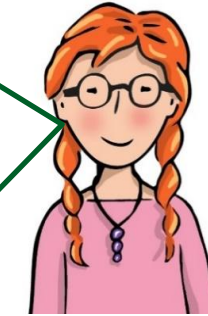


Connect

The students are describing the transformation of C to F.



C moves 7 squares to the right and 8 squares down.



We can write: $\begin{pmatrix} 7 \\ -8 \end{pmatrix}$

What other translations can be described with this vector?



Connect

Write a vector that can describe the translations:

C to F

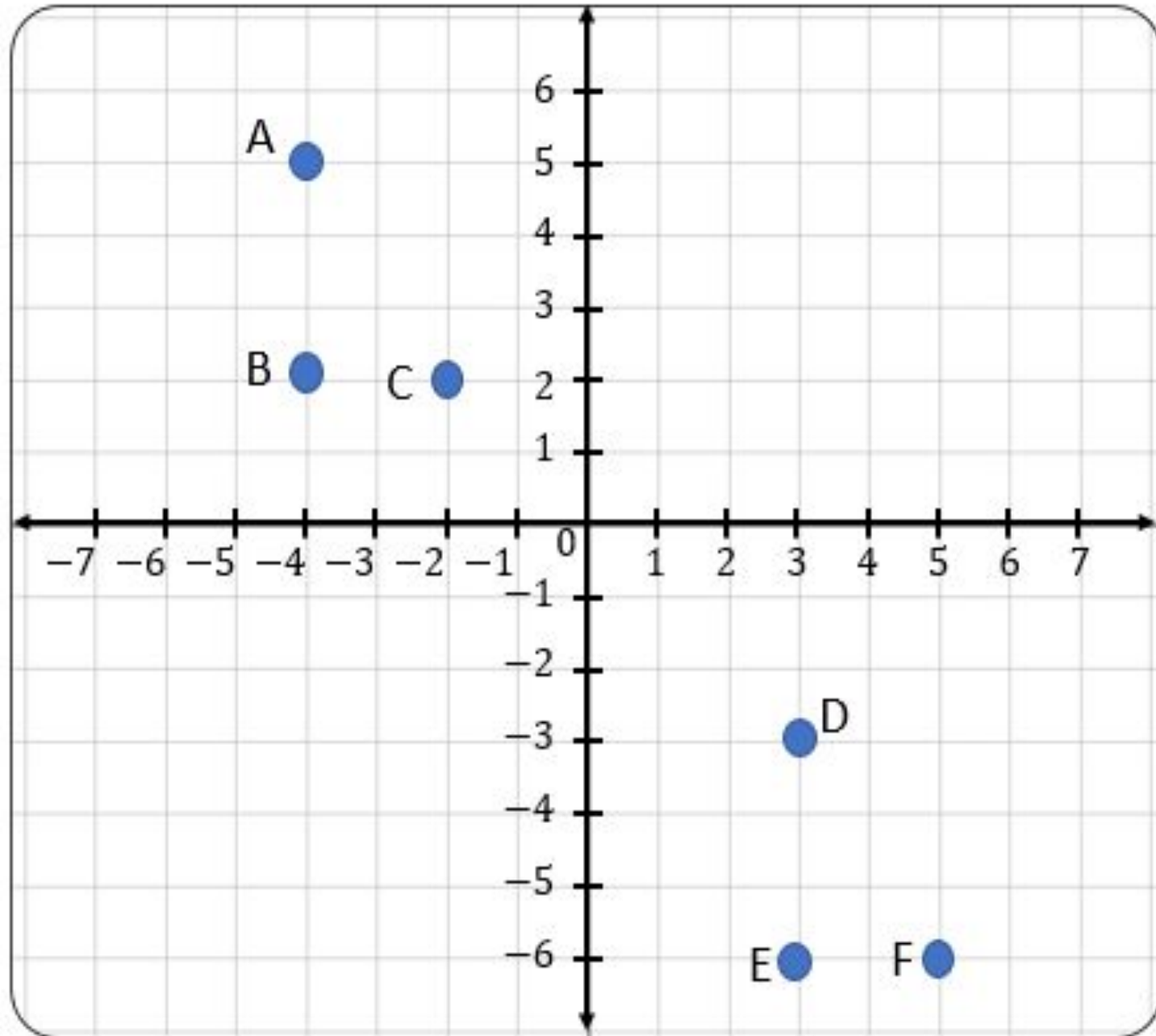
$$\begin{pmatrix} 7 \\ -8 \end{pmatrix}$$

F to C

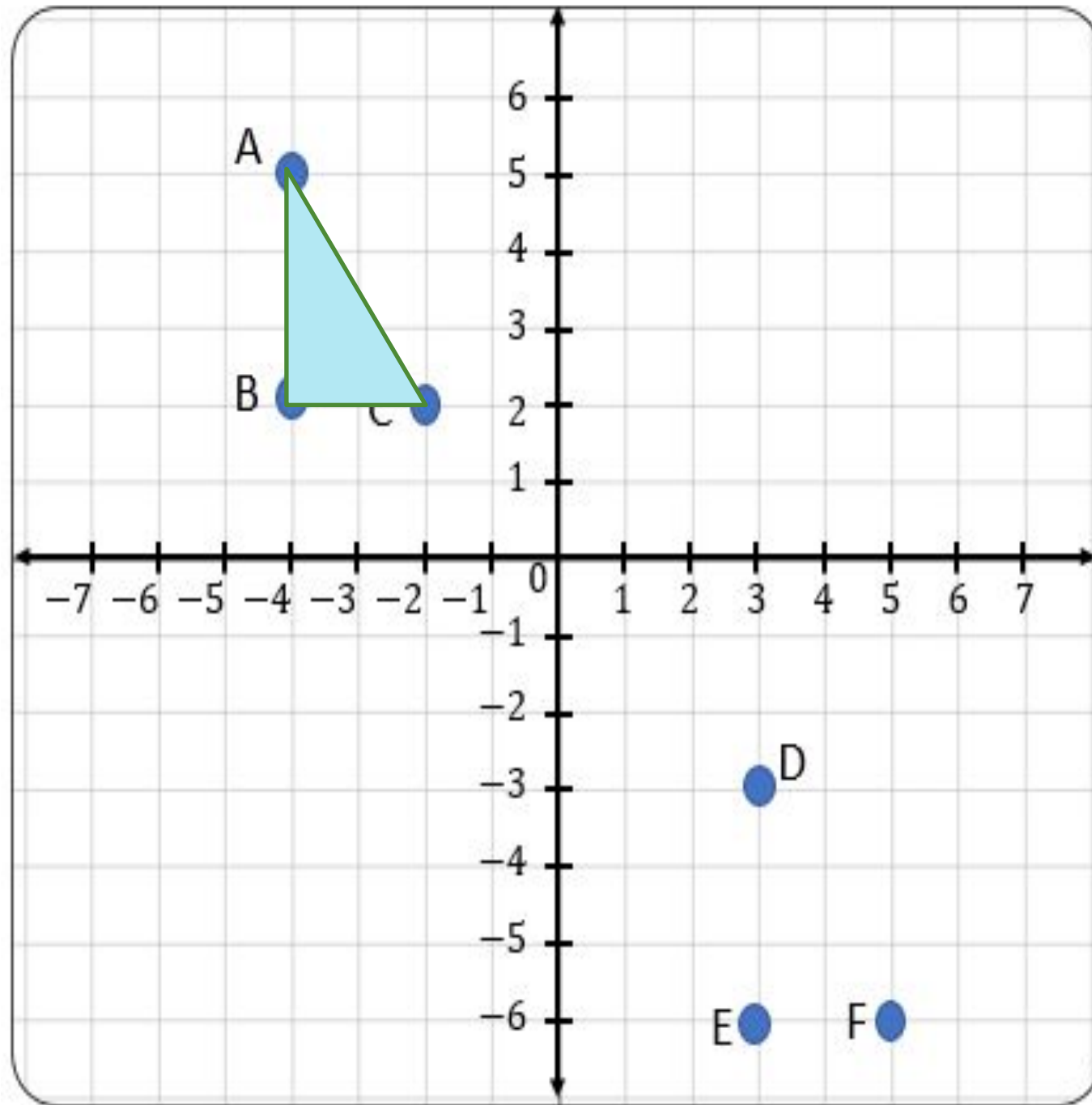
D to B

B to C

A to B



Connect



The object Triangle ABC is translated: $\begin{bmatrix} -2 \\ -3 \end{bmatrix}$

What are the coordinates of the image?

The object Triangle DEF is translated: $\begin{bmatrix} 5 \\ 2 \end{bmatrix}$

What are the coordinates of the image?



Independent task(page 1)

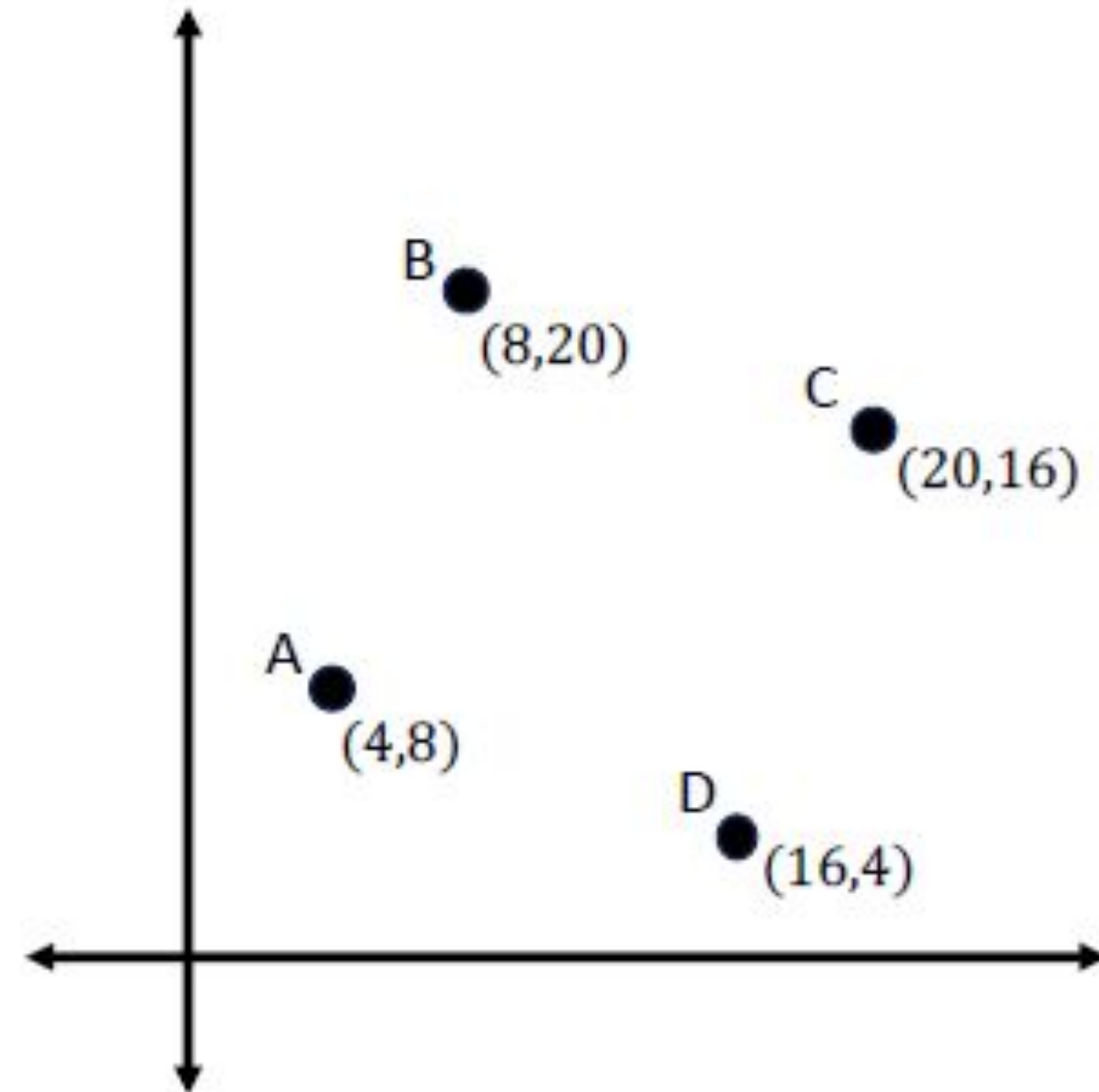
Describe using vectors the journey between the following points:

a) A to B

b) C to B

c) A to D

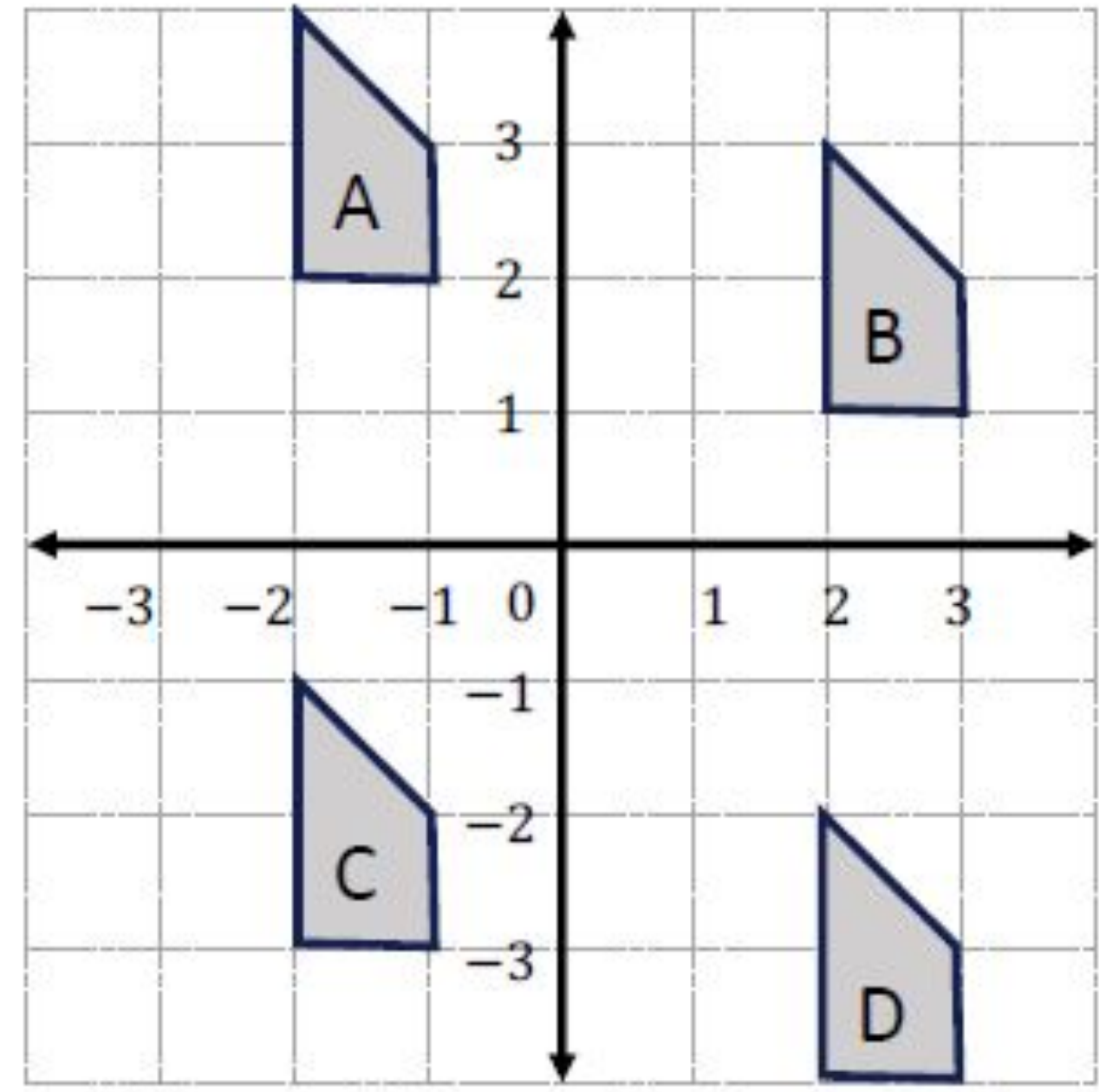
d) B to D



Independent task (page 2)

Describe the transformation in each case:

- a) A to B
- b) B to D
- c) A to D
- d) B to C



Explore

What vectors can be used to describe the translations between the shapes in the tessellation pattern below?

