

## Lesson 2 Translation

### Translation

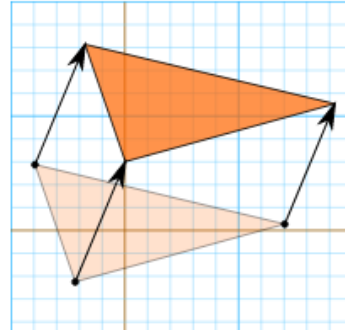
In Geometry, "Translation" simply means **Moving** ...

... without rotating, resizing or anything else, **just moving**.

To Translate a shape:

Every point of the shape must move:

- the **same distance**
- in the **same direction**.



Look through the powerpoint to answer some questions on translation.

Choose a task that you feel confident in completing. 3 options that you have are developing, expected and greater depth.

## Developing

### Translation with Coordinates

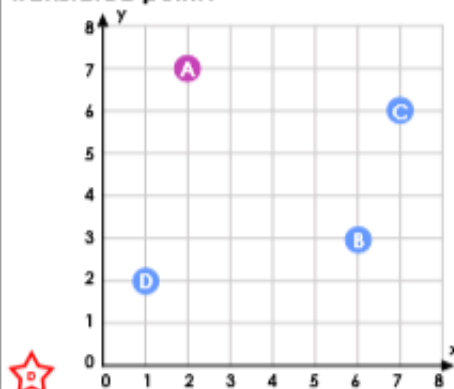
1a. Point A is translated 3 right and 4 up. What are the coordinates of the correctly translated point?



VF

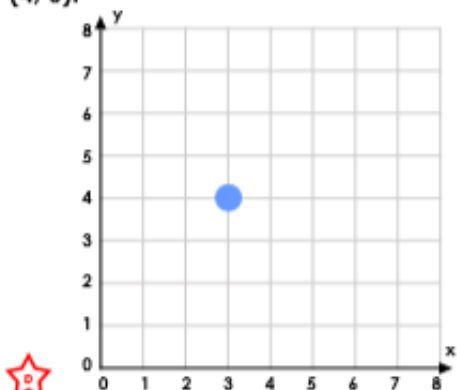
### Translation with Coordinates

1b. Point A is translated 1 left and 5 down. What are the coordinates of the correctly translated point?



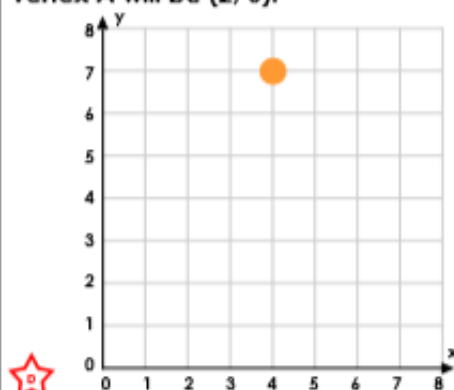
VF

2a. True or false? If the point is translated 1 left and 2 up, the new coordinates will be (4, 6).



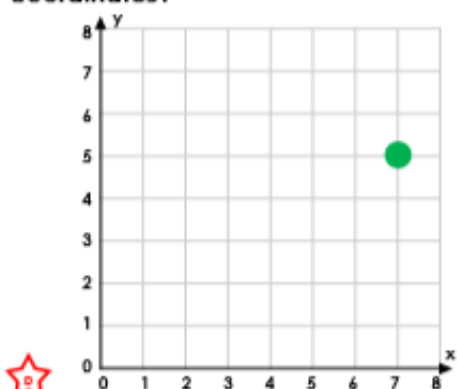
VF

2b. True or false? If the point is translated 4 left and 5 down, the new coordinates of vertex A will be (2, 0).



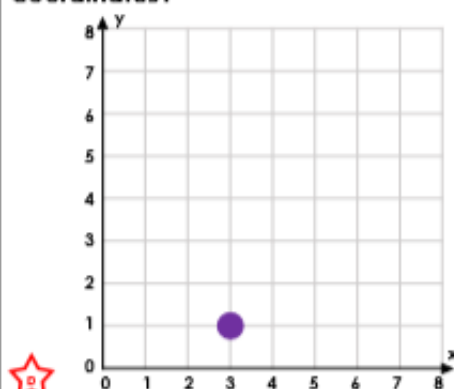
VF

3a. This point has been translated 7 right and 3 up. What are the original coordinates?



VF

3b. This point has been translated 3 left and 5 down. What are the original coordinates?



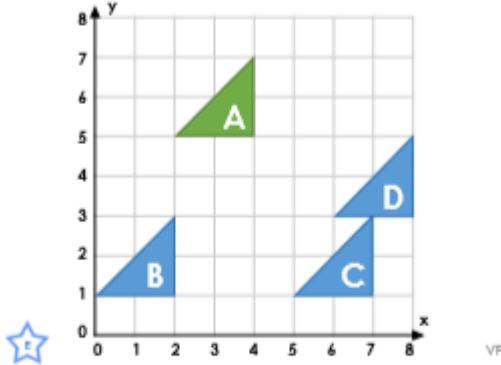
VF

# Expected

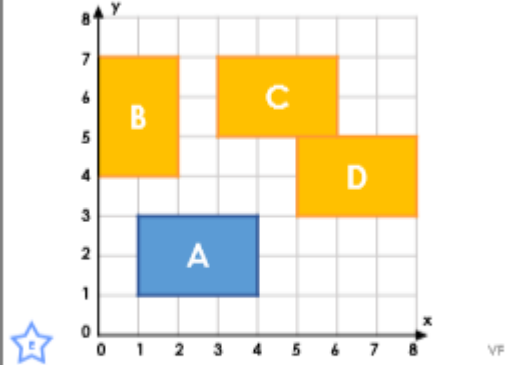
## Translation with Coordinates

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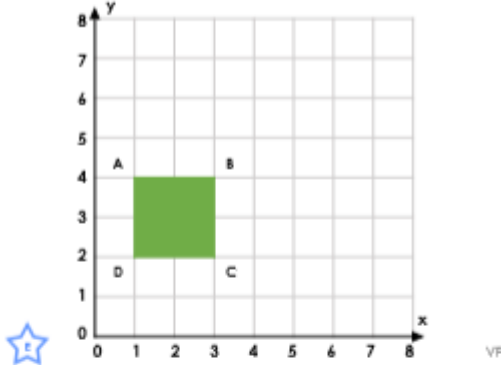
4a. Triangle A is translated 3 right and 4 down. What are the coordinates of the vertices of the correctly translated shape?



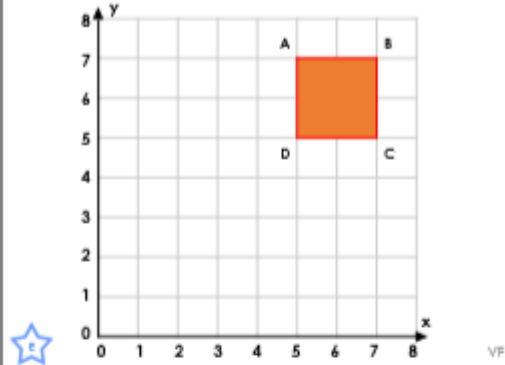
4b. Rectangle A is translated 4 right and 2 up. What are the coordinates of the vertices of the correctly translated shape?



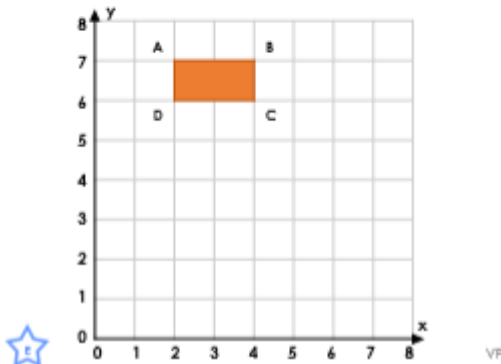
5a. True or false? If the square is translated 1 left and 2 up, the new coordinates of vertex B will be (4, 6).



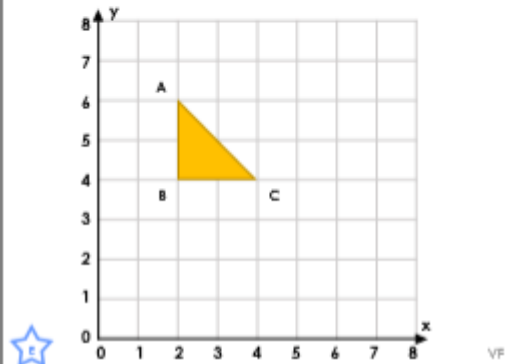
5b. True or false? If the square is translated 4 left and 5 down, the new coordinates of vertex A will be (1, 2).



6a. This shape has been translated 2 left and 6 up. What are the original coordinates of each vertex?



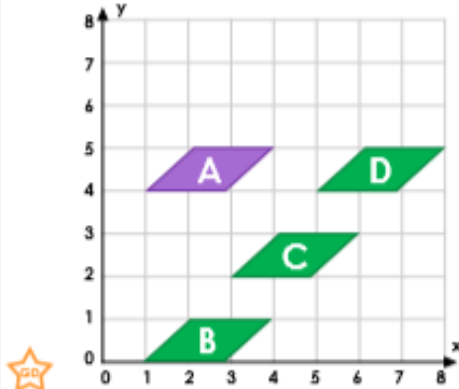
6b. This shape has been translated 3 left and 3 up. What are the original coordinates of each vertex?



## Greater Depth

### Translation with Coordinates

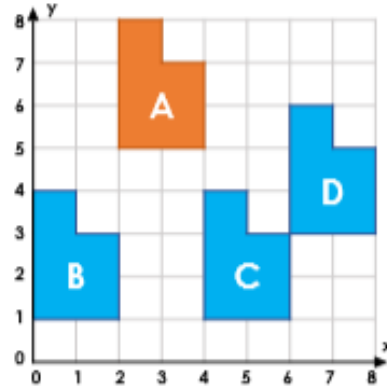
7a. Shape A is translated 0 left and 4 down. What are the coordinates of the vertices of the correctly translated shape?



VF

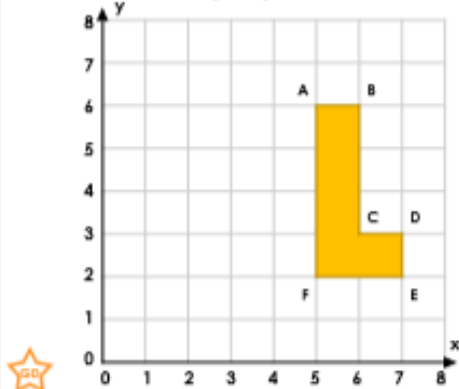
### Translation with Coordinates

7b. Shape A is translated 2 right and 4 down. What are the coordinates of the vertices of the correctly translated shape?



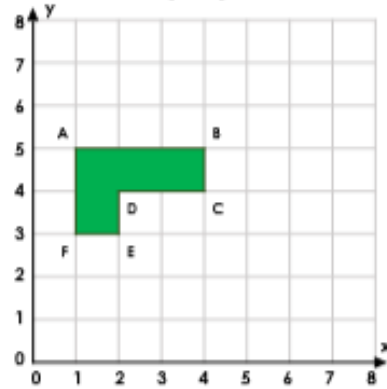
VF

8a. True or false? If the shape is translated 4 left and 1 up, the new coordinates of vertex D will be (3, 4).



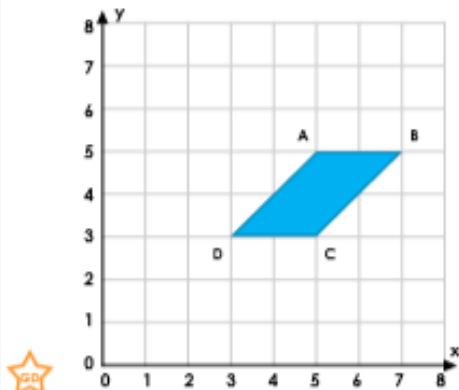
VF

8b. True or false? If the shape is translated 5 right and 2 down, the new coordinates of vertex E will be (1, 7).



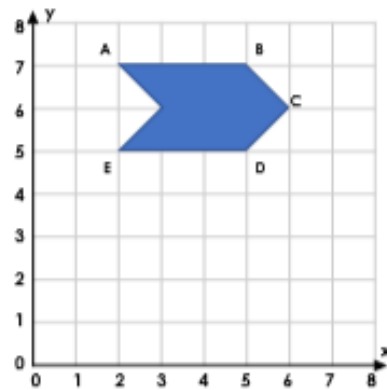
VF

9a. This shape has been translated 2 right and 3 up. What are the original coordinates of each vertex?



VF

9b. This shape has been translated 2 left and 4 up. What are the original coordinates of each vertex?



VF