Step 4: Describe Movement

Describe Movement

Notes and Guidance

Children describe the movement of shapes and points on a coordinate grid using specific language such as: left/right and up/down. Sentence stems might be useful. They start with the left/right translation followed by up/down.

Teachers should check that children understand the idea of 'corresponding vertices' when describing translation of shapes (e.g. vertex A on the object translates to vertex A on the image).

Mathematical Talk
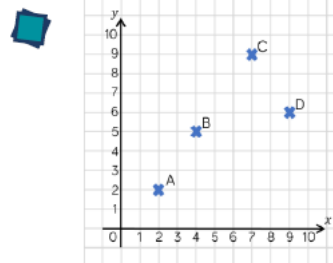
Can you describe the translation?

Can you describe the translation in reverse?

Can you complete the following stem sentence:

Shape A is translated ___ left/right and _____up/down to shape B

Varied Fluency

Describe the translation from:

▲ to ✖   ♥ to ★

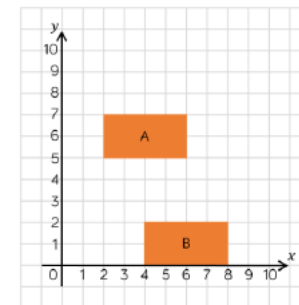▲ to ♥   ★ to ✖

Describe the translation from:
A to B   B to C   C to D   D to A

Plot two new points and describe the translations from A to your new points.

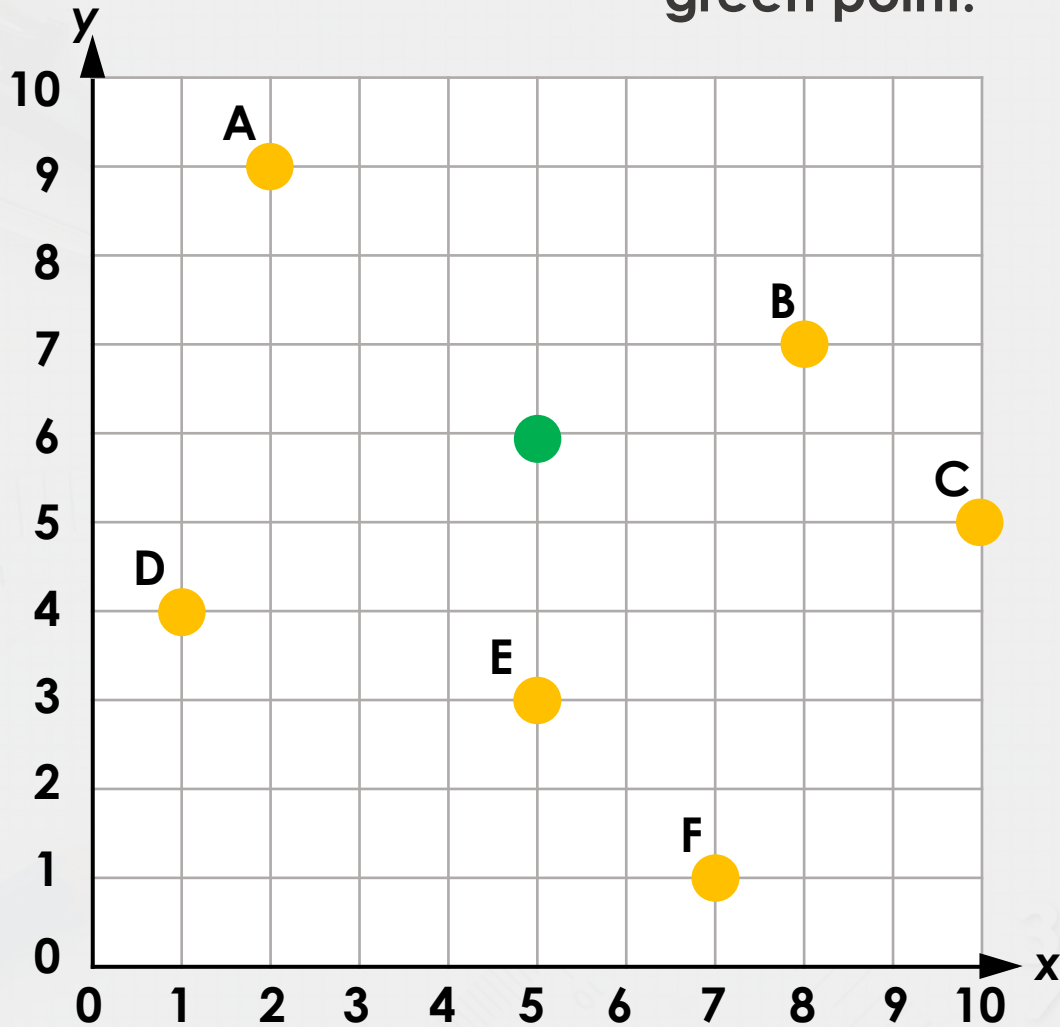Describe the translation of shape A to shape B.

Describe the translation of shape B to shape A.
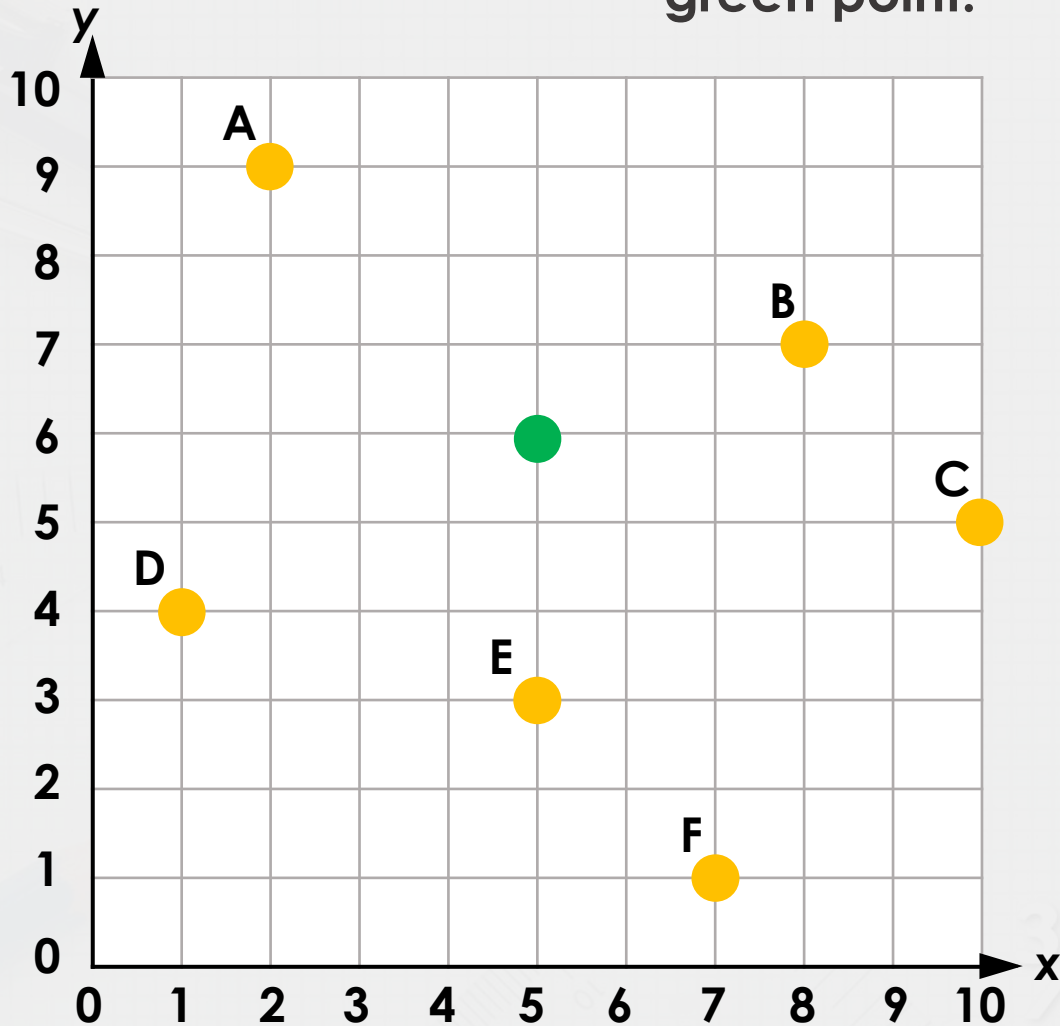
What do you notice?

9

Describe how each of the orange points must move to get to the green point.

Describe how each of the orange points must move to get to the green point.

A: 3 right and 3 down

B: 3 left and 1 down

C: 5 left and 1 up

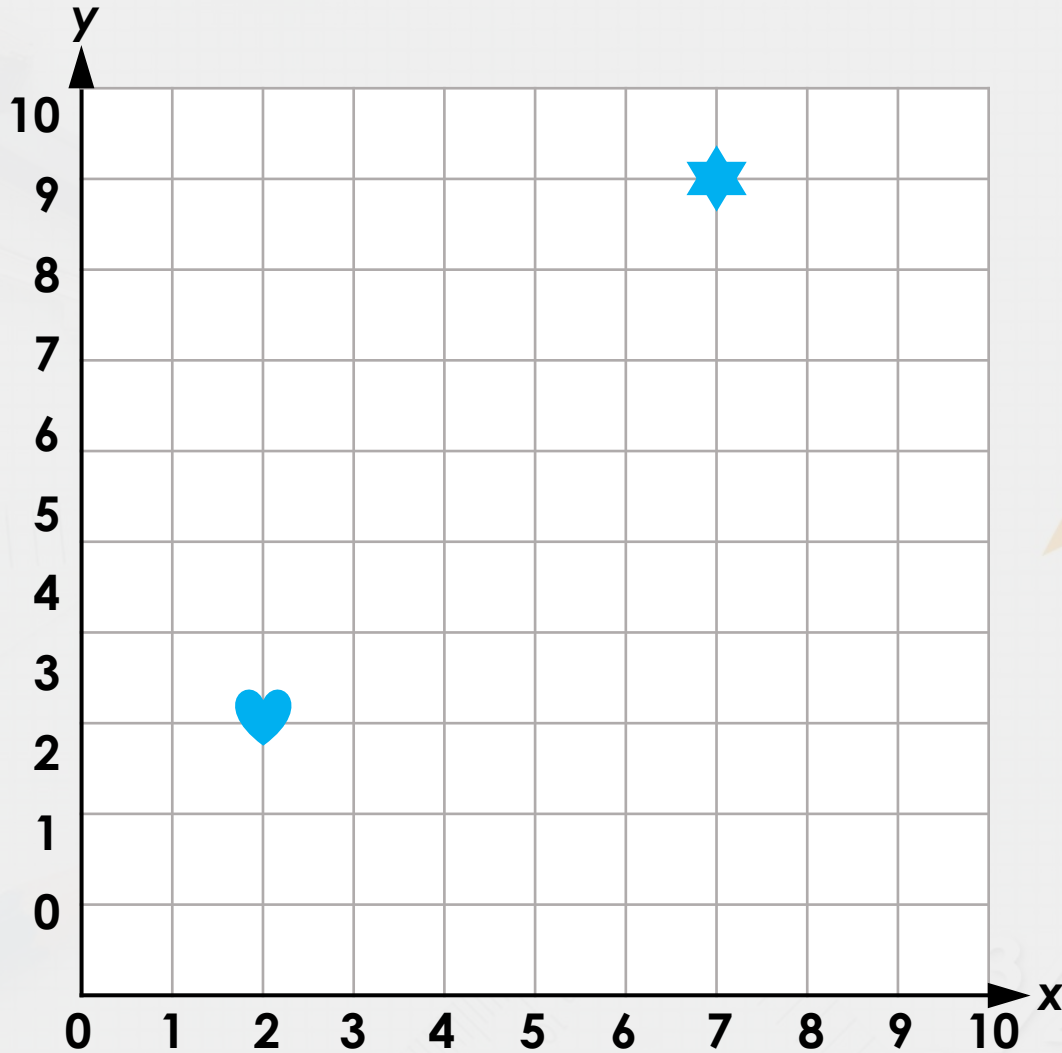D: 4 right and 2 up

E: 3 up

F: 2 left and 5 up

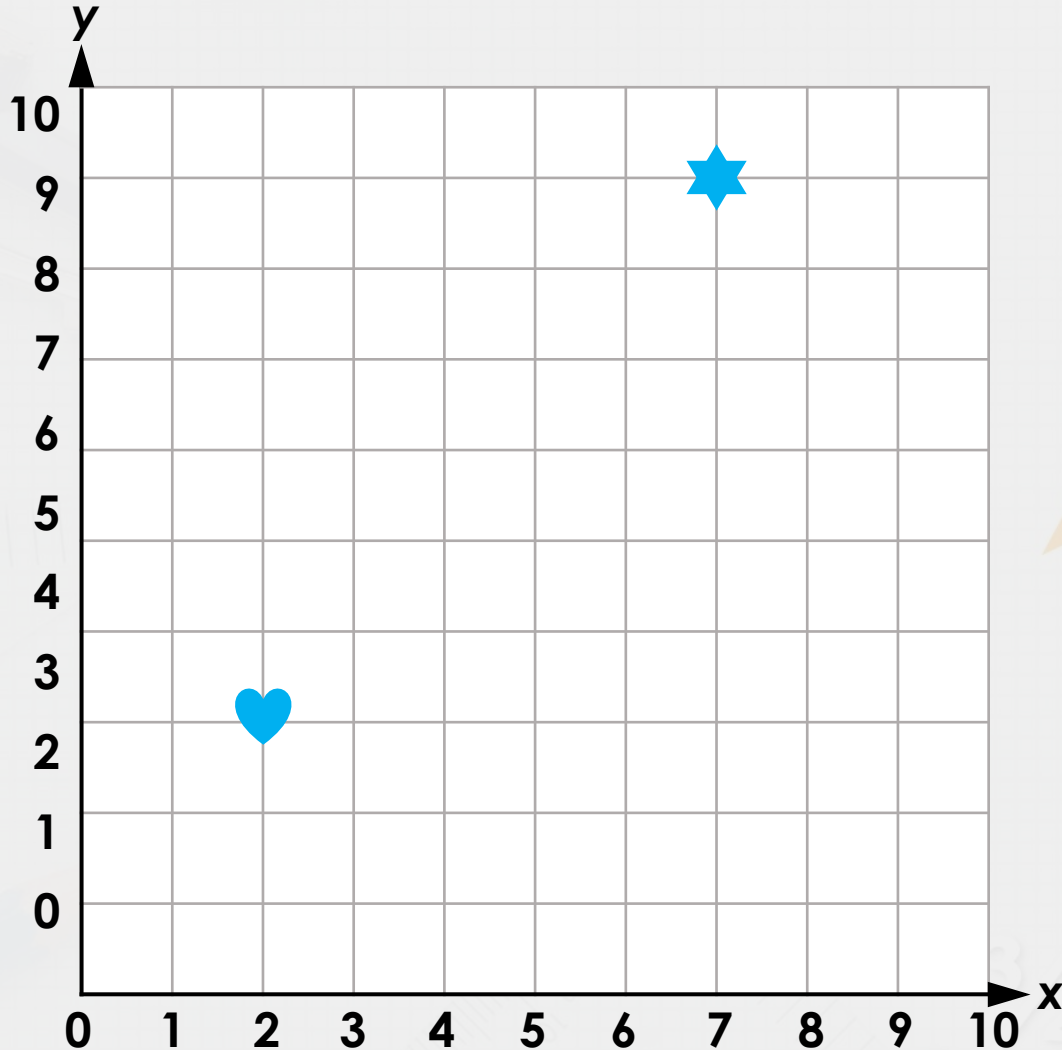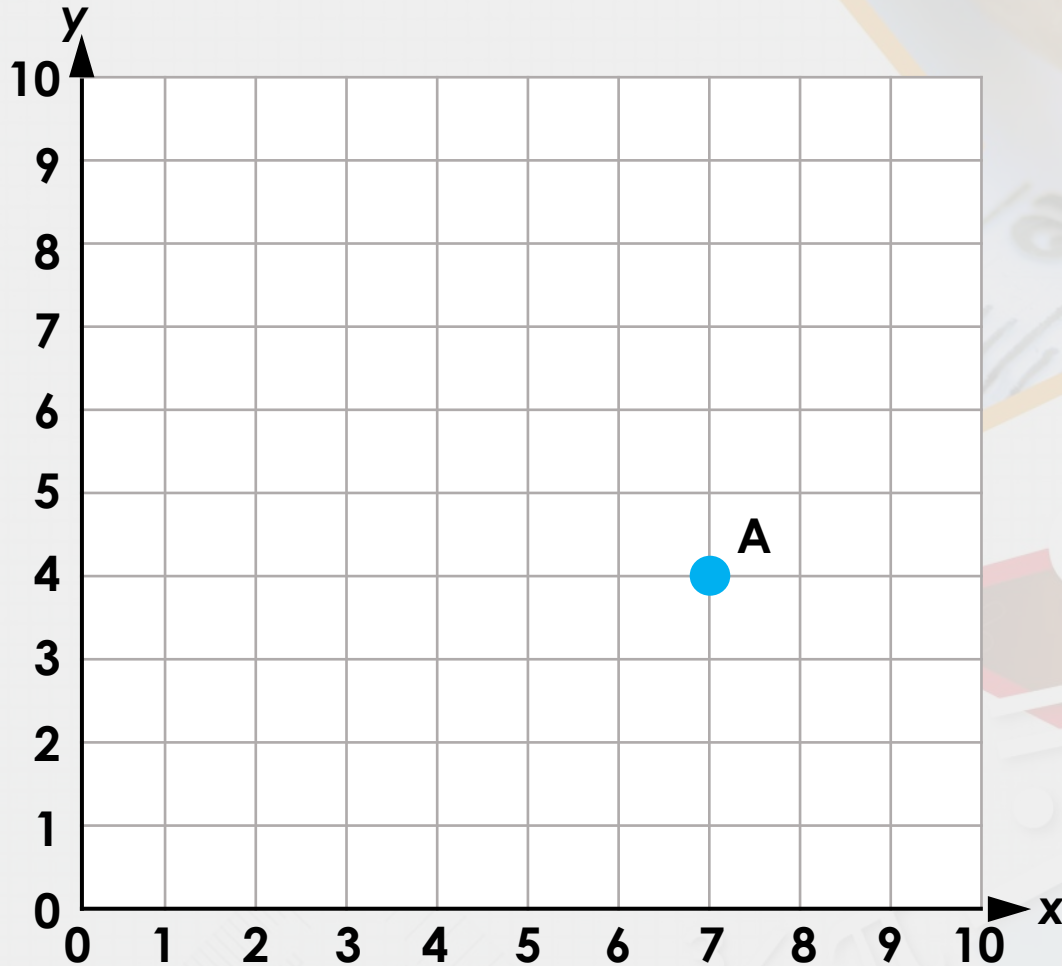# Describe the movement needed for the heart to get to the star.

Describe the movement needed for the heart to get to the star.
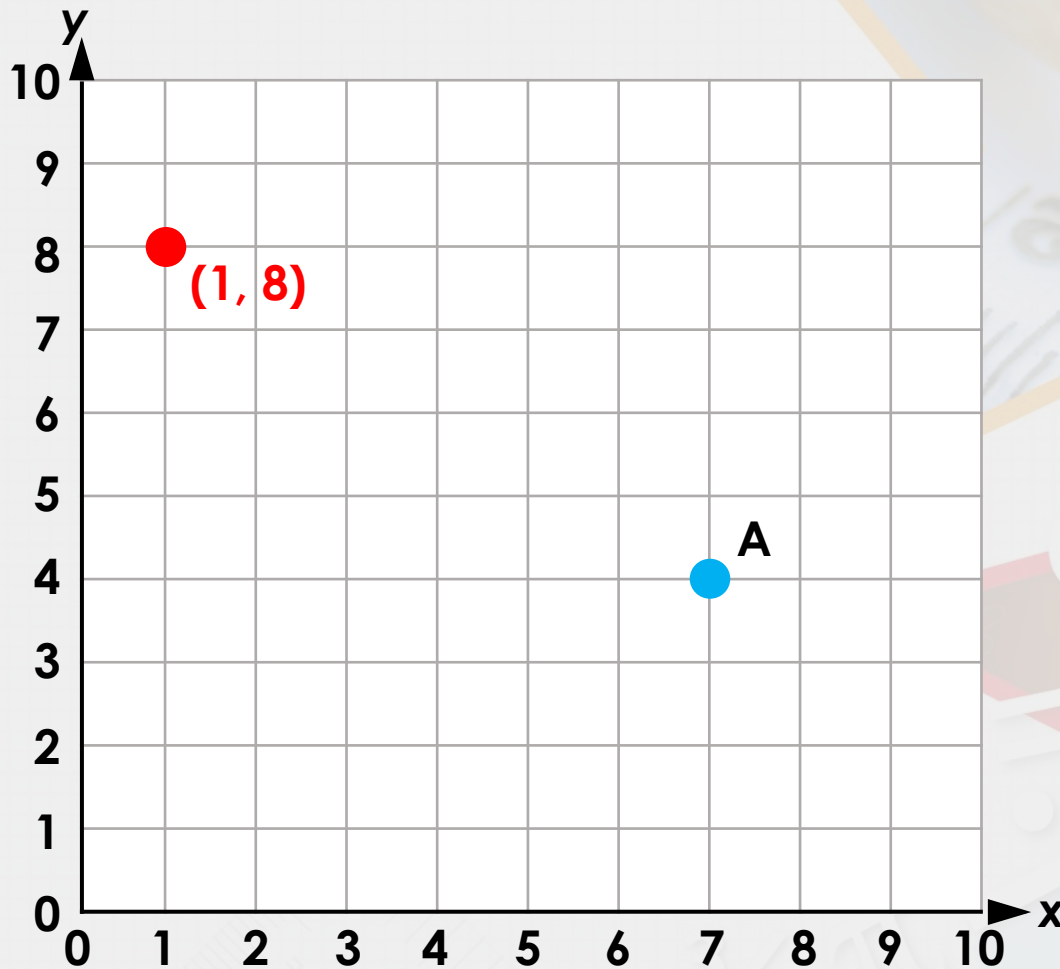

5 squares right and 6 squares up.

Translate point A 6 left and 4 up. What are the new coordinates?

Translate point A 6 left and 4 up. What are the new coordinates?

A point is plotted on a grid at (5, 8).

It is translated 3 left and 4 down.

What are the new coordinates?

A point is plotted on a grid at (5, 8).

It is translated 3 left and 4 down.

What are the new coordinates?

(2, 4)

Rebecca has plotted a point on a grid at (2, 5).

It is translated to (9, 7).

How is it translated?

Rebecca has plotted a point on a grid at (2, 5).

It is translated to (9, 7).

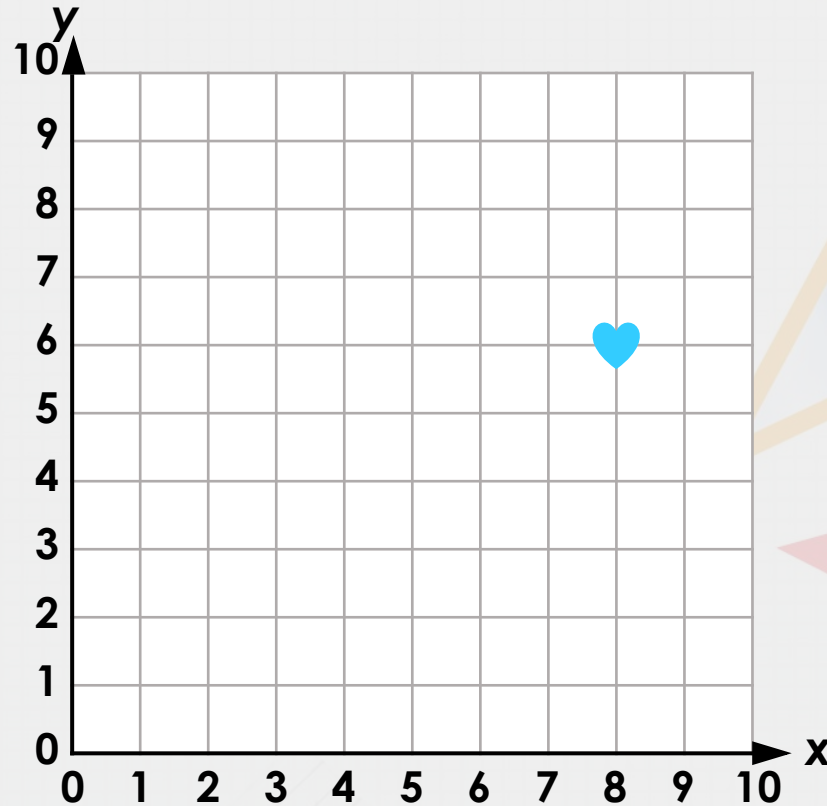**How is it translated?**

7 right and 2 up

**The heart has been translated. Its starting coordinates were (3, 9).
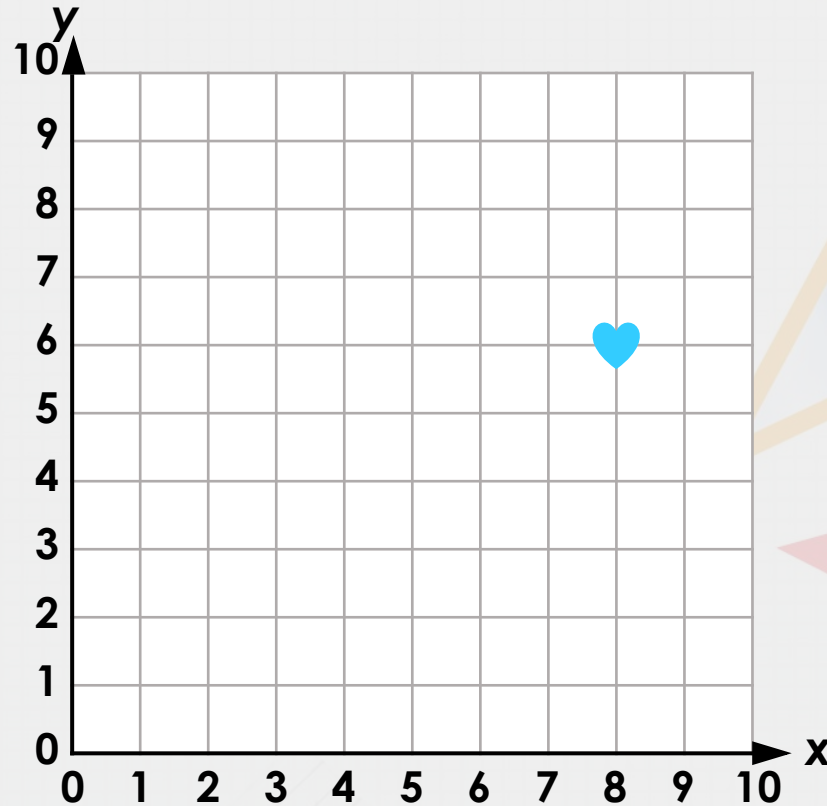Kate says it has moved 3 right and 4 down.**

Is she correct? Explain.

The heart has been translated. Its starting coordinates were (3, 9). Kate says it has moved 3 right and 4 down.

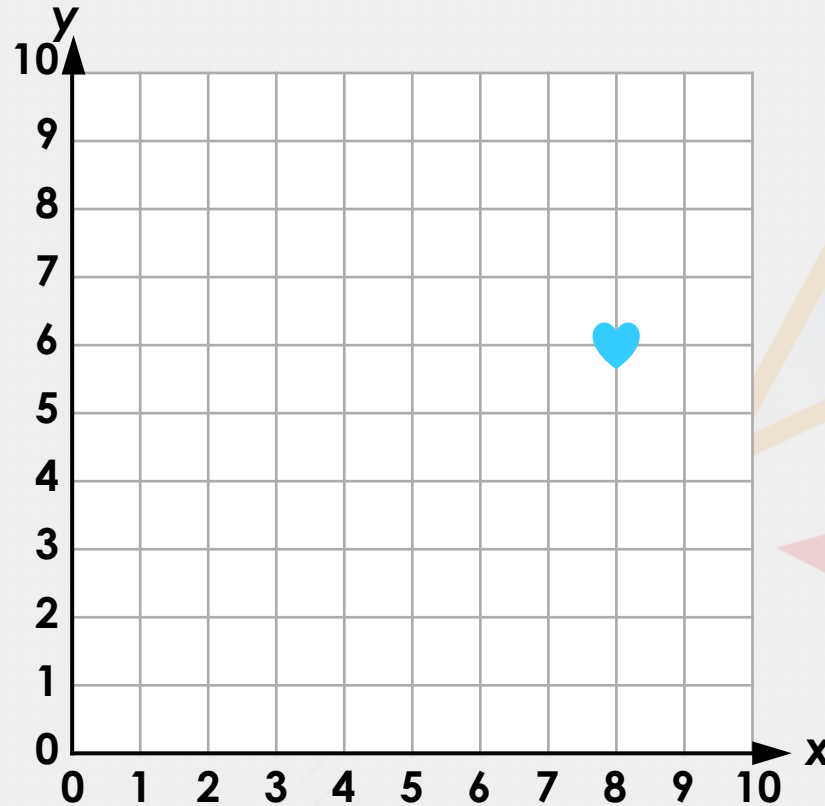**Is she correct? Explain.**
Kate is incorrect because…

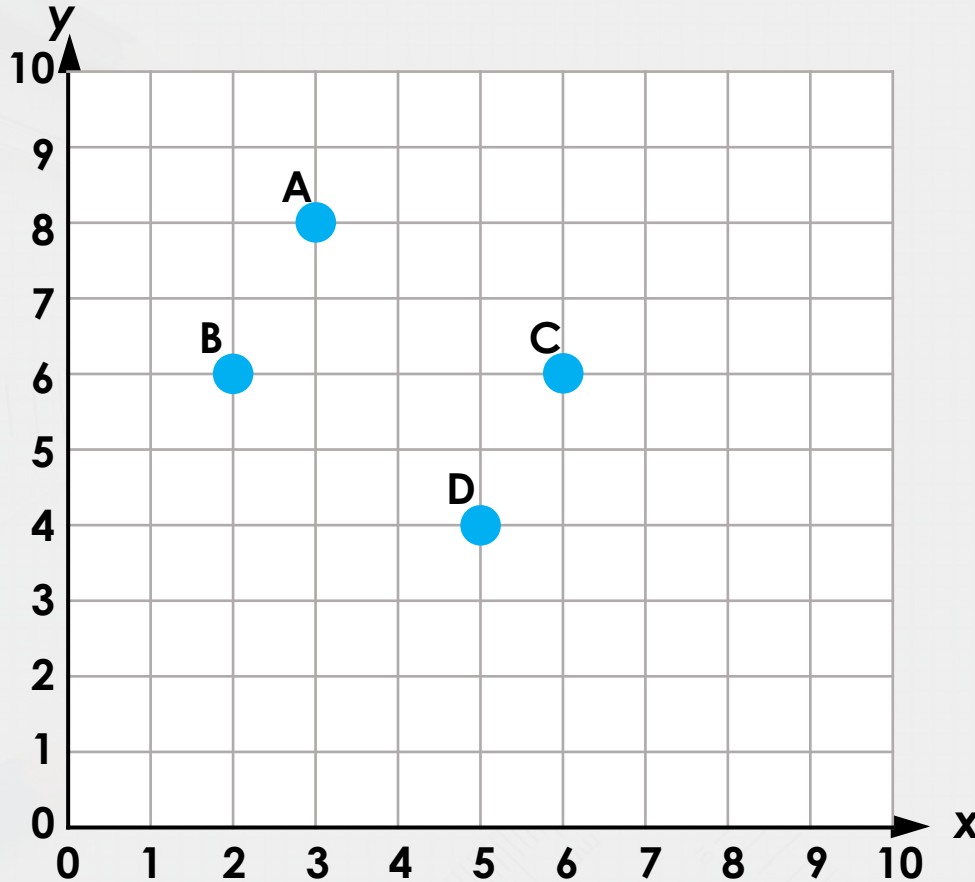The heart has been translated. Its starting coordinates were (3, 9). Kate says it has moved 3 right and 4 down.

Is she correct? Explain.

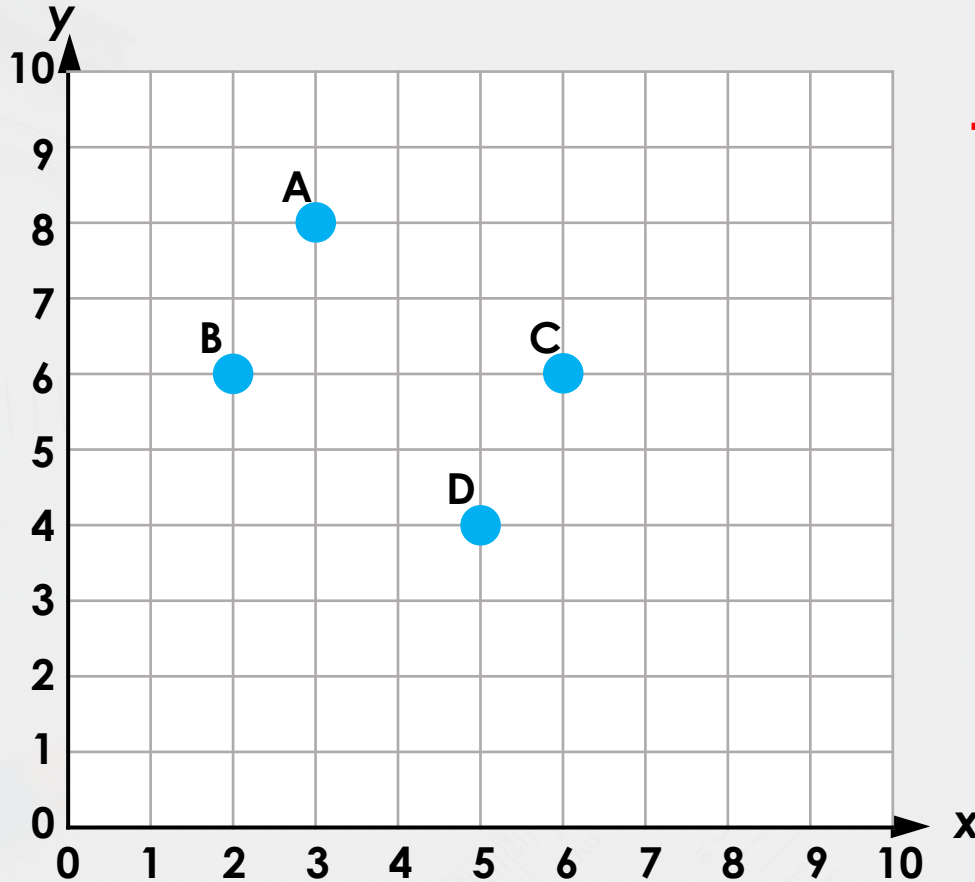Kate is incorrect because the heart has moved 5 right and 3 down.

Points A and B make exactly the same translations. Write the translations made and the coordinates of the start and finish positions of each point.

Points A and B make exactly the same translations. Write the translations made and the coordinates of the start and finish positions of each point.

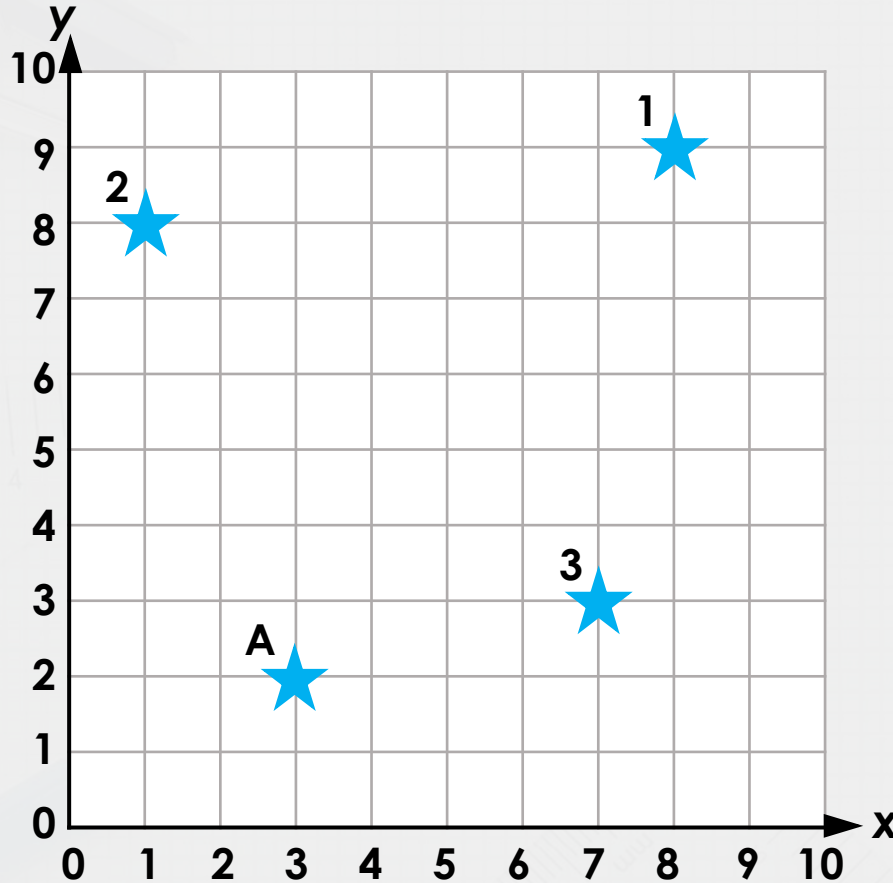They have both moved 3 squares right and 2 squares down.

A (3, 8) has moved to C (6, 6).

B (2, 6) has moved to D (5, 4).

Star A has been translated three times. Match each numbered point to the correct translation statement.

A. 2 left and 6 up

B. 4 right and 1 up

C. 5 right and 7 up

Star A has been translated three times. Match each numbered point to the correct translation statement.

2A. 2 left and 6 up

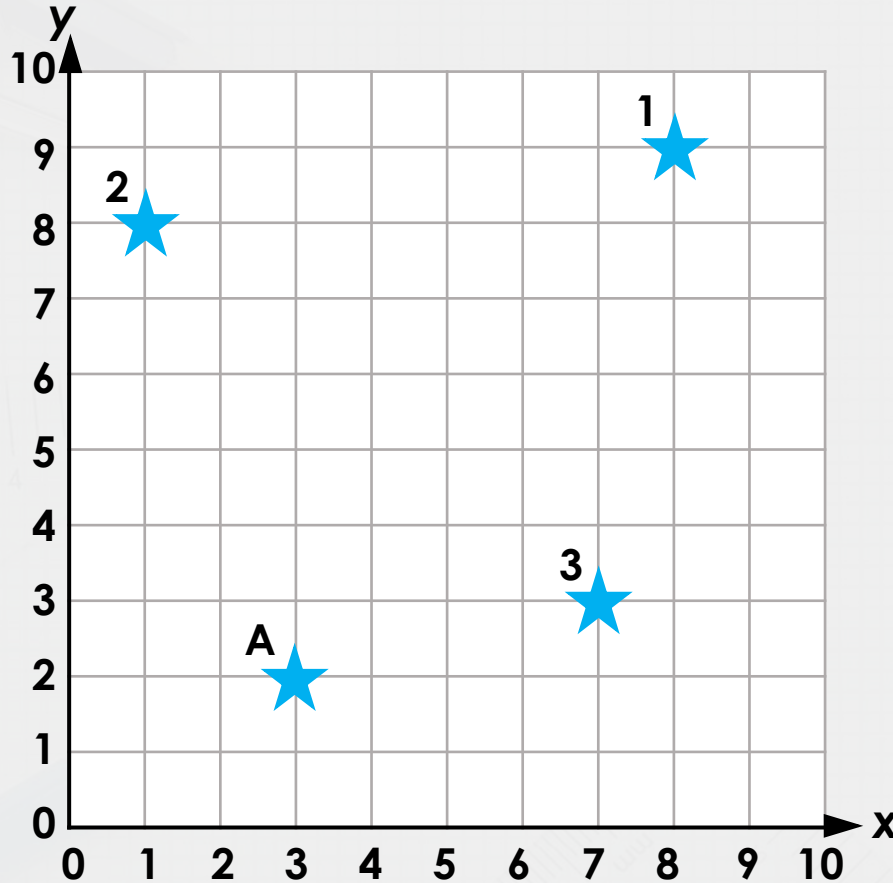**3B. 4 right and 1 up**

1C. 5 right and 7 up