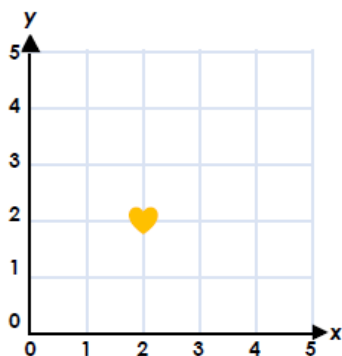


Describe Movement

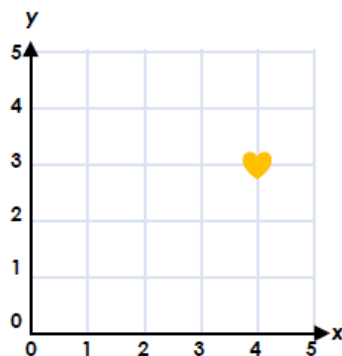
1a. The heart has been translated. Its starting coordinates were (2, 0). Lee says it has moved 2 up. Is he correct? Explain.



R

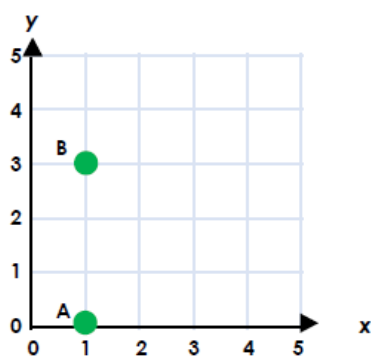
Describe Movement

1b. The heart has been translated. Its starting coordinates were (1, 3). Kayleigh says it has moved 4 right. Is she correct? Explain.



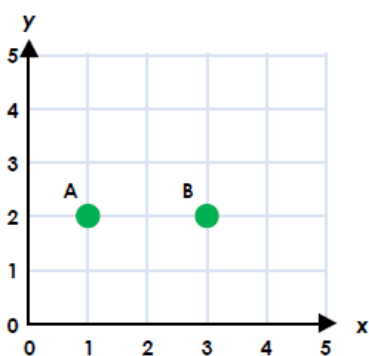
R

2a. Point A has been translated. Write the translation made and the coordinates of the start and finish positions of the point.



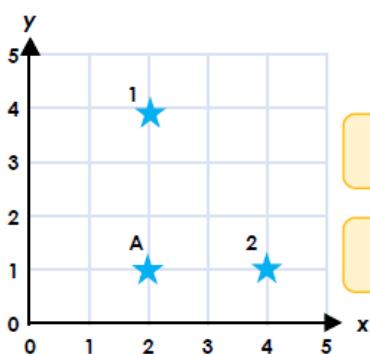
PS

2b. Point A has been translated. Write the translation made and the coordinates of the start and finish positions of the point.



PS

3a. Star A has been translated. Match the point to the correct translation statement.



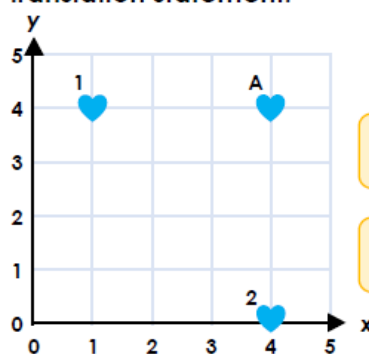
A. 2 right

B. 3 up



PS

3b. Heart A has been translated two times. Match the shape to the correct translation statement.



A. 3 left

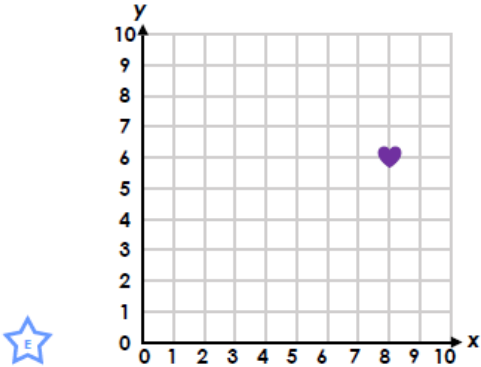
B. 4 down



PS

Describe Movement

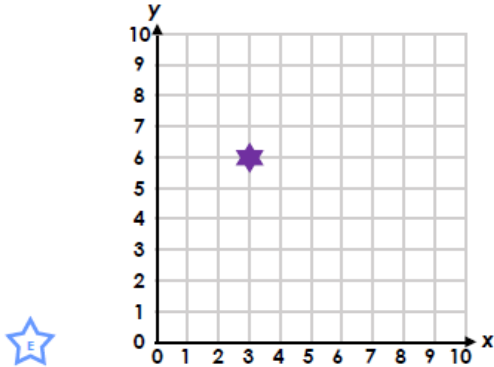
4a. The heart has been translated. Its starting coordinates were (4, 5). Ruby says it has moved 1 right and 4 up. Is she correct? Explain.



R

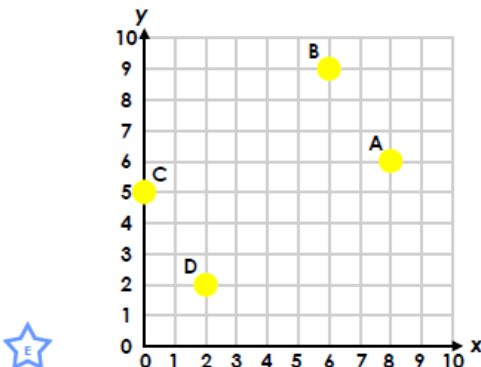
Describe Movement

4b. The star has been translated. Its starting coordinates were (5, 8). Ali says it has moved 2 left and 2 down. Is he correct? Explain.



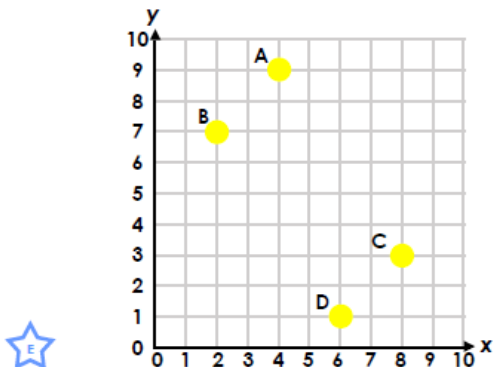
R

5a. Points A and B have made exactly the same translations. Write the translations made and the coordinates of the start and finish positions of each point.



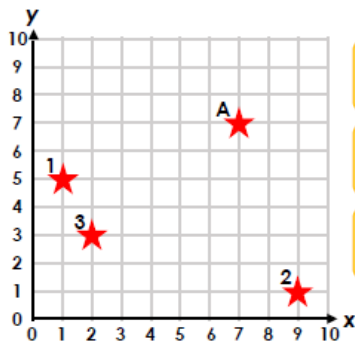
PS

5b. Points A and B have made exactly the same translations. Write the translations made and the coordinates of the start and finish positions of each point.



PS

6a. Star A has been translated three times. Match each numbered point to the correct translation statement.



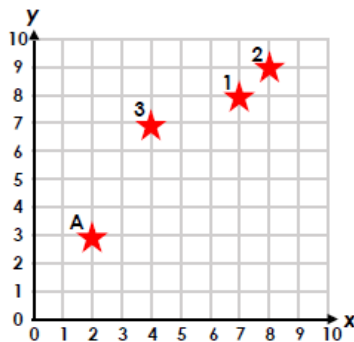
PS

A. 2 right and 6 down

B. 5 left and 4 down

C. 6 left and 2 down

6b. Star A has been translated three times. Match each numbered point to the correct translation statement.



PS

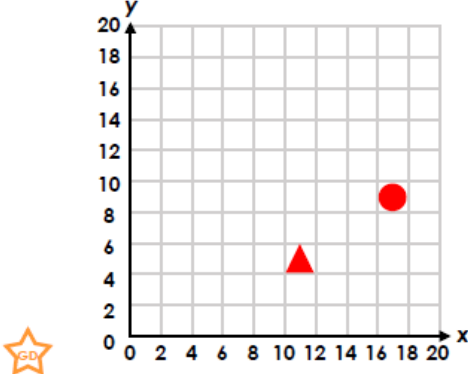
A. 5 right and 5 up

B. 2 right and 4 up

C. 6 right and 6 up

Describe Movement

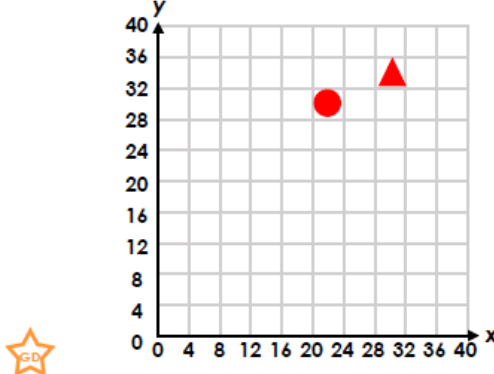
7a. The triangle and circle have been translated from $(3, 15)$ and $(9, 19)$. Jim says they have both moved 8 right and 10 down. Is he correct? Explain.



R

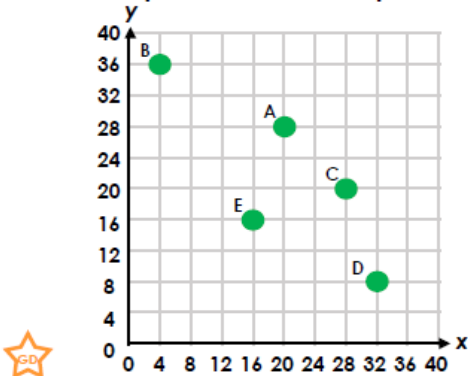
Describe Movement

7b. The triangle and circle have been translated from $(18, 18)$ and $(10, 14)$. Tiana says they have both moved 16 right and 16 down. Is she correct? Explain.



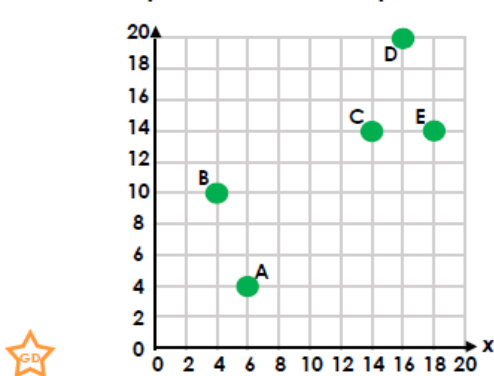
R

8a. Points A and B have made exactly the same translations. Write the translations made and the coordinates of the start and finish positions of each point.



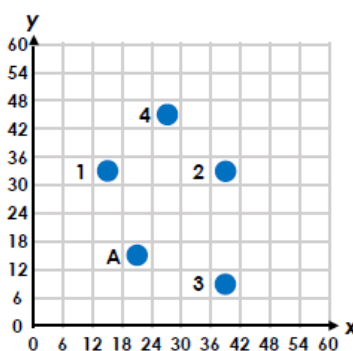
PS

8b. Points A and B have made exactly the same translations. Write the translations made and the coordinates of the start and finish positions of each point.



PS

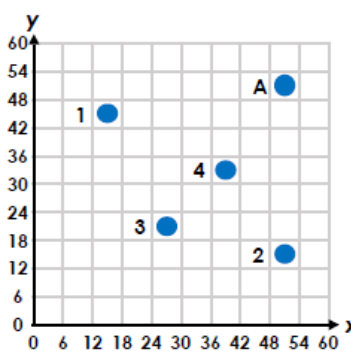
9a. Point A has been translated four times. Match each numbered point to the correct translation statement.



PS

- A. 18 right and 18 up
- B. 18 right and 6 down
- C. 6 left and 18 up
- D. 6 right and 30 up

9b. Point A has been translated four times. Match each numbered point to the correct translation statement.



PS

- A. 12 left and 18 down
- B. 36 left and 6 down
- C. 36 down
- D. 24 left and 30 down

Reasoning and Problem Solving
Describe Movement

Developing

- 1a. Yes, Lee is correct because the new coordinates are (2, 2).
2a. It has moved 3 squares up. A (1, 0) has moved to B (1, 3).
3a. 1B; 2A

Expected

- 4a. No, Ruby is incorrect because it has moved 4 squares right and 1 square up.
5a. They have both moved 6 squares left and 4 squares down. A (8, 6) has moved to D (2, 2); B (6, 9) has moved to D (0, 5).
6a. 1C; 2A; 3B

Greater Depth

- 7a. Yes, Jim is correct because the new coordinates are (11, 5) and (17, 9).
8a. They have both moved 12 right and 20 down. A (20, 28) has moved to D (32, 8); B (4, 36) has moved to E (16, 16).
9a. 1C; 2A; 3B; 4D

Reasoning and Problem Solving
Describe Movement

Developing

- 1b. No because the heart has moved 3 squares right.
2b. It has moved 2 squares right. A (1, 2) has moved to B (3, 2).
3b. 1A; 2B

Expected

- 4b. Yes, Ali is right because the new coordinates are (3, 6).
5b. They have both moved 4 squares right and 6 squares down. A (4, 9) has moved to C (8, 3); B (2, 7) has moved to D (6, 1).
6b. 1A; 2C; 3B

Greater Depth

- 7b. No, she is incorrect because they both move 12 right and 16 up.
8b. They have both moved 12 right and 20 down. A (6, 4) has moved to E (18, 14); B (4, 10) has moved to D (16, 20).
9b. 1B; 2C; 3D; 4A