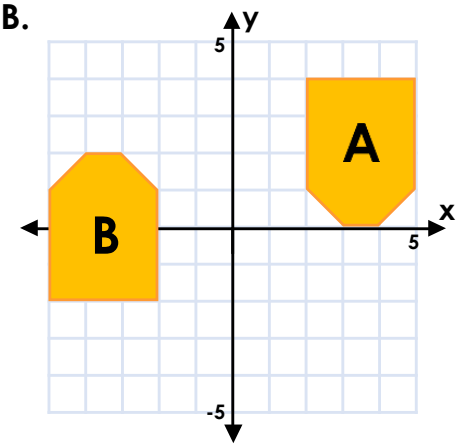
Reflections

7a. Describe two reflections and one translation needed to move shape A to shape B.

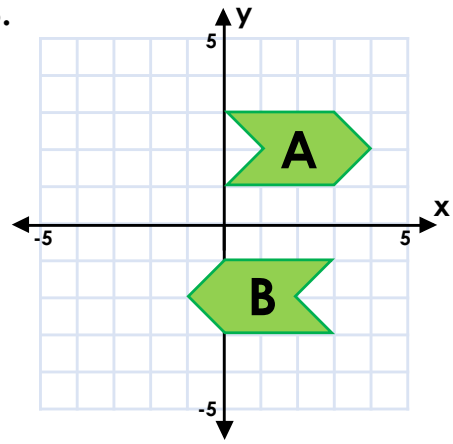


Is there more than one possibility?

GD PS

Reflections

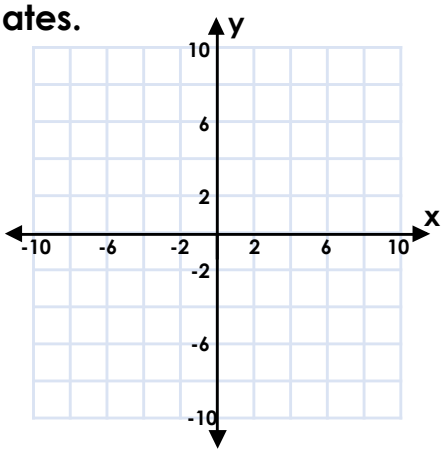
7b. Describe two reflections and one translation needed to move shape A to shape B.



Is there more than one possibility?

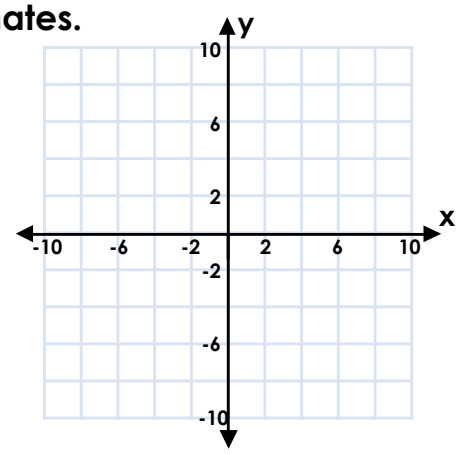
GD PS

8a. A shape is reflected in the x axis and then the y axis. The new coordinates are (4, -2), (4, -10), (6, -6), (8, -2), (8, -10). Draw the starting shape and write its coordinates.



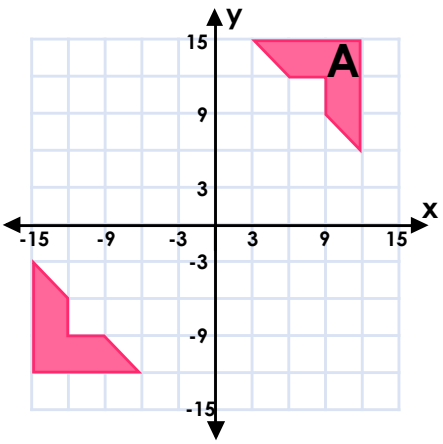
GD PS

8b. A shape is reflected in the y axis and then the x axis. The new coordinates are (0, 6), (0, 8), (2, 4), (4, 8), (6, 4), (6, 6). Draw the starting shape and write its coordinates.



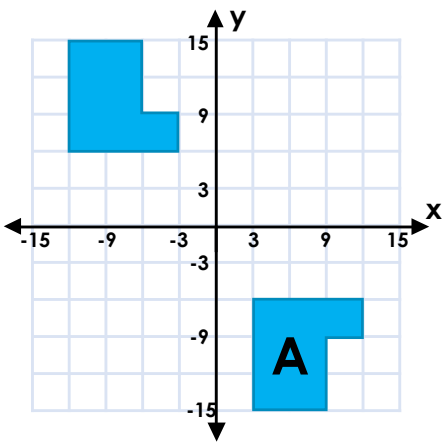
GD PS

9a. Shape A is reflected in the y axis and then the x axis. Are the reflections correct? Explain why.



GD R

9b. Shape A is reflected in the x axis and then the y axis. Are the reflections correct? Explain why.



GD R

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Reasoning and Problem Solving Reflections

Developing

1a. There is more than one possibility, for example: Shape A can be reflected in the y axis and then translated 1 unit up; Shape A can be translated 1 unit up and then reflected in the y axis.

2a. Starting shape coordinates: (1, -1), (1, -3), (3, -1), (3, -3).

3a. Shape A is correct.
Shape B is incorrect. The new coordinates should be (2, -2), (2, -4), (5, -2), (5, -4).

Expected

4a. There is more than one possibility, for example: Shape A can be reflected in the x axis and then translated 5 units to the right; Shape A can be translated 5 units right and then reflected in the x axis.

5a. Starting shape coordinates: (0, 0), (-2, 0), (-1, 3), (-3, 3).

6a. Shape A is incorrect. The new coordinates should be (-2, 1), (-2, 4), (-4, 4), (-5, 1), (-5, 3).
Shape B is correct.

Greater Depth

7a. There is more than one possibility, for example: Shape A can be reflected in the x axis and then the y axis, then translated 2 units up; Shape A can be reflected in the y axis and then the x axis, then translated 2 units up.

8a. Starting shape coordinates: (-4, 2), (-4, 10), (-6, 6), (-8, 2), (-8, 10).

9a. No. The new coordinates of the reflected shape should be (-3, -15), (-6, -12), (-9, -9), (-9, -12), (-12, -6), (-12, -15).

Reasoning and Problem Solving Reflections

Developing

1b. There is more than one possibility, for example: Shape A can be reflected in the y axis and then translated 1 unit down; Shape A can be translated 1 unit down and then reflected in the y axis.

2b. Starting shape coordinates: (4, 0), (7, 0), (4, 7).

3b. Shape A is correct.
Shape B is incorrect. The new coordinates should be (2, -1), (2, -4), (5, -1), (5, -4).

Expected

4b. There is more than one possibility, for example: Shape A can be reflected in the x axis then translated 5 units left; Shape A can be translated 5 units left and then reflected in the x axis.

5b. Starting shape coordinates: (-5, 1), (-4, 3), (-3, 3), (2, 1).

6b. Shape A is correct.
Shape B is incorrect. The new coordinates should be (-2, -2), (-2, -4), (-4, -1), (-4, -5).

Greater Depth

7b. There is more than one possibility, for example: Shape A can be reflected in the y axis and then the x axis, then translated 3 units right; Shape A can be reflected in the x axis and then the y axis, then translated 3 units right.

8b. Starting shape coordinates: (0, -6), (0, -8), (-2, -4), (-4, -8), (-6, -4), (-6, -6).

9b. No. The coordinates of the reflected shape should be (-3, 6), (-3, 15), (-9, 9), (-9, 15), (-12, 6), (-12, 9).

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