

Transformations on a Graph

A pre-image point is given. Apply the directions to find the coordinates of the image point.

<u>Pre-Image Point and Directions</u>	<u>Image Point</u>
1. (3, -4) reflected over the y-axis	(,)
2. (4, 5) reflected over the x-axis	(,)
3. (-5, -7) reflected over the line $y = 4$	(,)
4. (1, 2) translated left 1 and up 5	(,)
5. (-4, -3) translated down 2	(,)
6. (-5, 6) translated right 4 and down 5	(,)
7. (2, 6) rotated 90° CC	(,)
8. (-3, 2) rotated 180°	(,)
9. (-4, 5) rotated 270° CC	(,)
10. (5, 0) reflected over the y-axis	(,)
11. (5, 0) rotated 270° CC	(,)
12. (5, 0) translated 3 right and 4 down	(,)
13. (-2, 3) translated 8, right and 4 up	(,)

Read these carefully!

Pre-Image Point and Directions

Image Point

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|-----|--------------------------------------------|---------------|
| 14. | $(-7, 9)$ rotated 90° CC | (,) |
| 15. | $(-7, 8)$ reflected over the line $x = -2$ | (,) |
| 16. | $(4, 2)$ reflected over the x-axis | (,) |
| 17. | $(-3, 4)$ rotated 270° CC | (,) |
| 18. | $(2, -5)$ reflected over the line $y = -3$ | (,) |
| 19. | $(-1, 3)$ reflected over the y-axis | (,) |
| 20. | $(9, 4)$ rotated 90° CC | (,) |