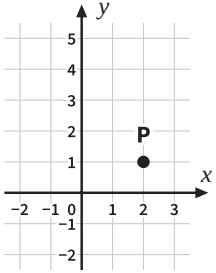
Graph transformations: where does the point go?

1

(2, 1) is on the graph of $y = f(x)$. Where is it on the graph of $y = f(x) + 3$?

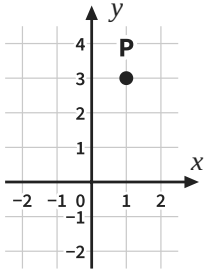


	x	y
before	2	1
after	2	

Answer _____

2

(1, 3) is on the graph of $y = f(x)$. Where is it on the graph of $y = f(x) - 4$?

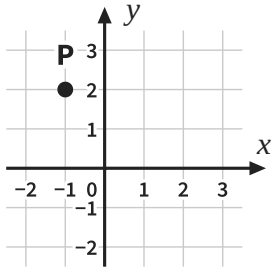


	x	y
before	1	3
after		

Answer _____

3

(−1, 2) is on the graph of $y = f(x)$. Where is it on the graph of $y = f(x - 3)$?

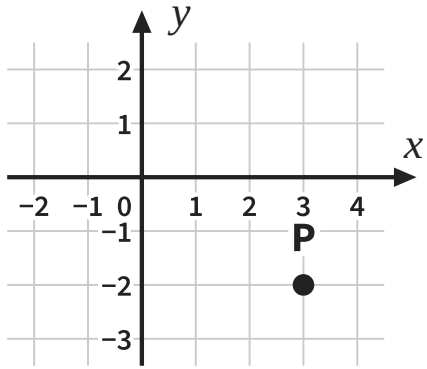


	x	y
before	−1	2
after		

Answer _____

4

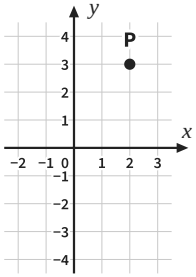
(3, −2) is on the graph of $y = f(x)$. Where is it on the graph of $y = f(x + 2)$?



Answer _____

5

(2, 3) is on the graph of $y = f(x)$. Where is it on the graph of $y = -f(x)$?

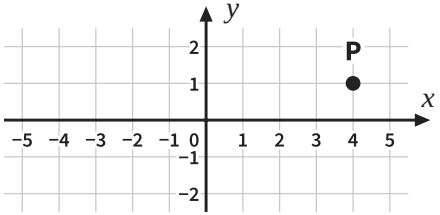


	x	y
before	2	3
after	2	

Answer _____

6

(4, 1) is on the graph of $y = f(x)$. Where is it on the graph of $y = f(-x)$?

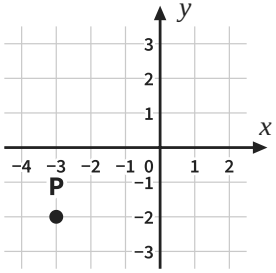


	x	y
before	4	1
after		

Answer _____

7

(−3, −2) is on the graph of $y = f(x)$. Where is it on the graph of $y = -f(x)$?

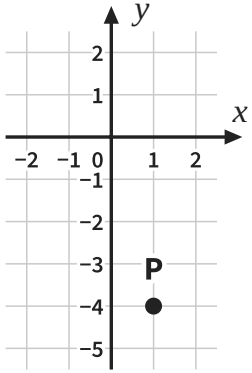


	x	y
before	−3	−2
after		

Answer _____

8

(1, −4) is on the graph of $y = f(x)$. Where is it on the graph of $y = f(-x)$?



Answer _____

Graph transformations: where does the point go? *further practice*

9

(3, −2) is on the graph of $y = f(x)$.
Where is it on the graph of $y = f(x) + 5$?
And on the graph of $y = f(x - 1)$?

Answer _____

10

(−4, 1) is on the graph of $y = f(x)$.
Where is it on the graph of $y = -f(x)$?
And on the graph of $y = f(-x)$?

Answer _____

11

$y = f(x)$ has a minimum point at (2, −5).
Find the minimum point of $y = f(x) + 3$ and of $y = f(x + 6)$.

Answer _____

12

$y = f(x)$ has a maximum point at (−1, 3).
Write the turning point of $y = -f(x)$ and of $y = f(-x)$. Is each a maximum or a minimum?

Answer _____

13

(2, 5) is on the graph of $y = f(x)$.
On a new graph it is at (−1, 5).
Write the equation of the new graph.

Answer _____

14

(4, 3) is on the graph of $y = f(x)$.
On a new graph it is at (−4, 3).
Write the equation of the new graph.

Answer _____

15

The path of a ball is the graph of $y = f(x)$. Its highest point is (4, 9).
A second ball follows the graph of $y = f(x - 2)$. Where is its highest point?

Answer _____

16

Zak says the point (0, 3) on $y = f(x)$ does not move when the graph is reflected to $y = f(-x)$.
Is he right? Explain.

Answer _____