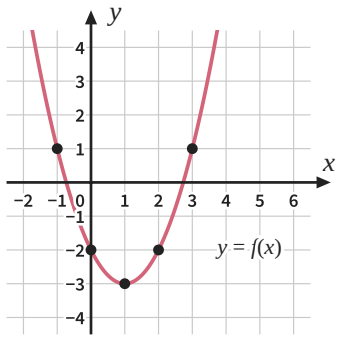
Graph transformations: reflections

1

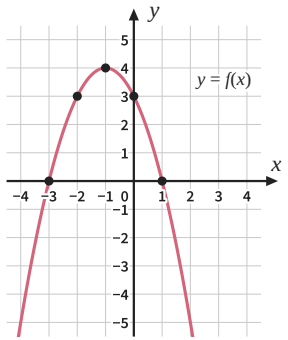
Sketch the graph of $y = -f(x)$.



x	−1	0	1	2	3
$f(x)$	1	−2	−3	−2	1
$-f(x)$	−1				

2

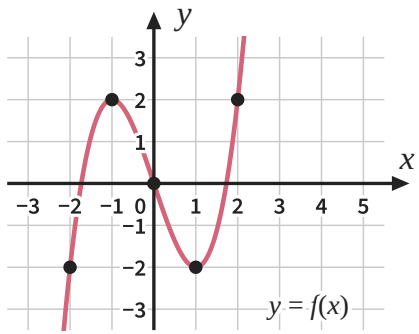
Sketch the graph of $y = -f(x)$.



x	−3	−2	−1	0	1
$f(x)$	0	3	4	3	0
$-f(x)$					

3

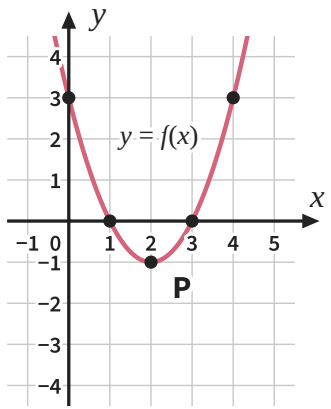
Sketch the graph of $y = -f(x)$.



x	−2	−1	0	1	2
$f(x)$					
$-f(x)$					

4

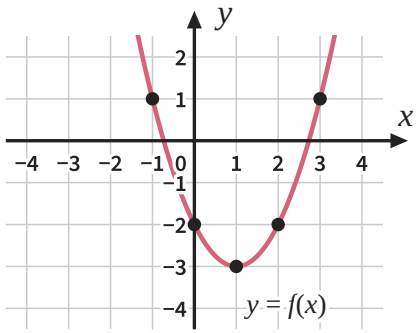
Sketch the graph of $y = -f(x)$.



P goes to _____

5

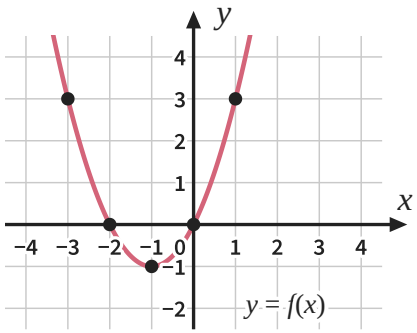
Sketch the graph of $y = f(-x)$.



x	−3	−2	−1	0	1
$-x$	3	2	1	0	−1
$f(-x)$	1				

6

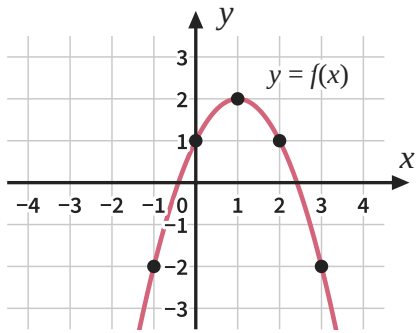
Sketch the graph of $y = f(-x)$.



x	−1	0	1	2	3
$-x$	1	0	−1	−2	−3
$f(-x)$					

7

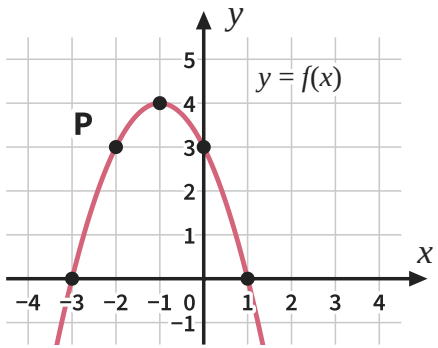
Sketch the graph of $y = f(-x)$.



x	−3	−2	−1	0	1
$-x$					
$f(-x)$					

8

Sketch the graph of $y = f(-x)$.

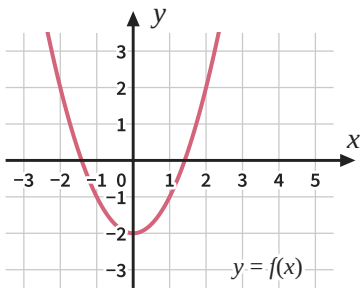


P goes to _____

Graph transformations: reflections *further practice*

9

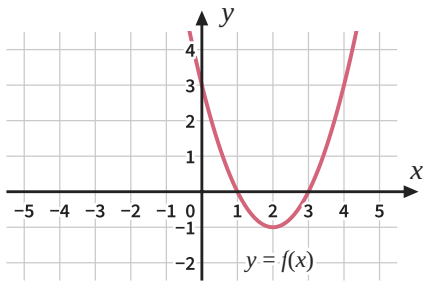
Sketch the graph of $y = -f(x)$.



Answer

10

Sketch the graph of $y = f(-x)$.



Answer

11

P(4, −3) is on the graph of $y = f(x)$.
Where is P on the graph of $y = -f(x)$?
And on the graph of $y = f(-x)$?

Answer

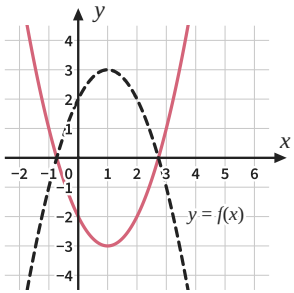
12

The arch of a bridge is the graph of $y = f(x)$, with its top at T(−2, 5).
The river is the x axis. Where is T in the reflection $y = -f(x)$? Where is the top of the arch $y = f(-x)$?

Answer

13

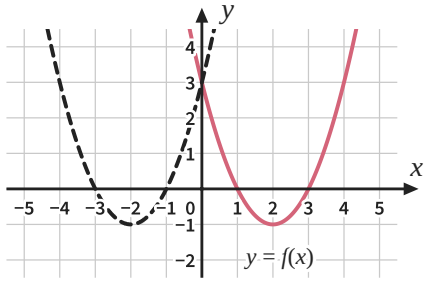
The dashed graph is a reflection of $y = f(x)$. Write its equation.



Answer

14

The dashed graph is a reflection of $y = f(x)$. Write its equation.



Answer

15

$y = f(x)$ has a minimum point at (3, −2).
Write the turning point of $y = -f(x)$ and of $y = f(-x)$. Is each one a maximum or a minimum?

Answer

16

$f(x) = x^2 - 4$. Ben says the graph of $y = f(-x)$ is the same as the graph of $y = f(x)$. Is he right? Explain.

Answer