

Quadratic Transformations - Part 2

by Mary Bourassa | 45-60 minutes | Development

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- Mobile
- Tablet
- Laptop

This activity allows students to investigate reflecting and scaling the graph of $y = x^2$. Combinations of transformations leading to graphs in the form $y = a(x - h)^2 + k$ are then explored.

This activity follows up on Quadratic Transformations – Part 1: <https://teacher.desmos.com/activitybuilder/custom/5626bd086053147c0df2fb>

Classes

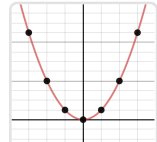
Create Code

Loading...

Screens

Preview

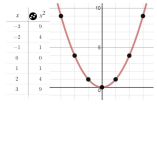
1 Notice the ...



The graph of $y = x^2$ is shown.

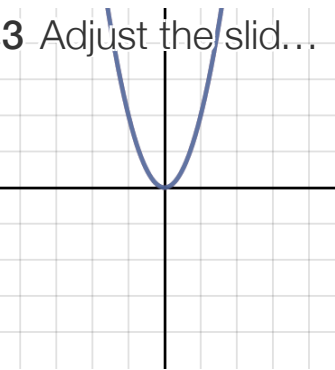
$f(x)$

2



Predict what the graph of $f(x)$ is.

3 Adjust the slid...



4

x	x^2	$-x^2$
-3	9	-9
-2	4	-4
-1	1	-1
0	0	0
1	1	-1
2	4	-4
3	9	-9

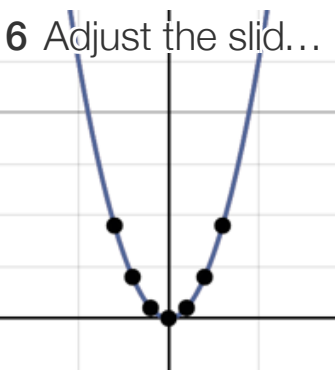
Is the negative sign in $f(x)$ \dots

5

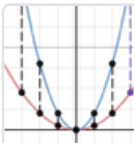
x	x^2	$2x^2$
-3	9	18
-2	4	8
-1	1	2
0	0	0
1	1	2
2	4	8
3	9	18

Predict what the graph of $f(x)$ is.

6 Adjust the slid...



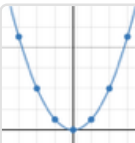
7 Fill in the bl...



The graph of $y = x^2$ is shown.

$f(x)$

8



Write an equation of the $f(x)$.

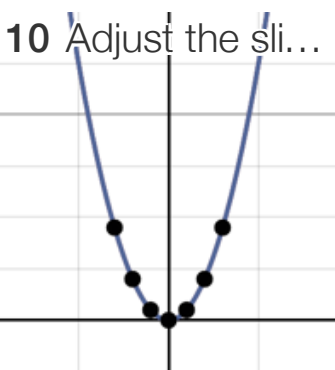
$f(x)$

9

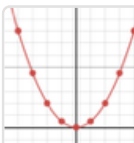
x	x^2	$0.5x^2$
-3	9	4.5
-2	4	2
-1	1	0.5
0	0	0
1	1	0.5
2	4	2
3	9	4.5

Predict what the graph of $f(x)$ is.

10 Adjust the sli...



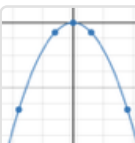
11 Fill in the ...



The point (4,16) is on the $f(x)$.

$f(x)$

12




Write an equation of the $f(x)$.

$f(x)$


13 Fill in the ...

$f(x)$


14 Adjust th...



15 Adjust the sli...

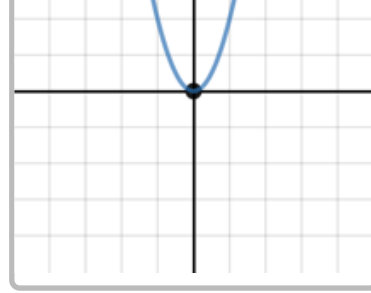


16



Compared to the graph of

Help Center icon



Which colour shows the

Help Center icon

17 Write the equation for a transformed version of $y = x^2$ that meets

Help Center icon

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