


x	$f(x)$	$g(x)$
0	0	1
1	1	4
2	4	9
3	9	16
4	16	25

 The table shows values for two functions. The function g is a transformation of f . How does the graph of g differ from that of f ?

- A) It has been shifted up.
- B) It has been shifted down.
- C) It has been shifted left.
- D) It has been shifted right.

es

Which graph represents the PARENT function of $y = x^2 + 3$?

A)



B)



C)



D)



es Which describes the difference between the graph of $f(x) = 4x^2$ and $g(x) = -8x^2$?

- A) The graph of $g(x)$ is obtained by flipping $f(x)$ over the y-axis and stretching vertically by a factor of 2.
- B) The graph of $g(x)$ is obtained by flipping $f(x)$ over the x-axis and compressing vertically by a factor of 2.
- C) The graph of $g(x)$ is obtained by flipping $f(x)$ over the x-axis and stretching vertically by a factor of 2.
- D) The graph of $f(x)$ is obtained by flipping $g(x)$ over the y-axis and compressing vertically by a factor of 2.



Which describes the difference between the graph of $f(x) = 3x^2 + 2$ and $g(x) = 9x^2$?

- A) The graph of $g(x)$ is obtained by shifting $f(x)$ up 2 units and compressing vertically by a factor of 3.
- B) The graph of $f(x)$ is obtained by shifting $g(x)$ up 2 units and compressing vertically by a factor of 3.
- C) The graph of $g(x)$ is obtained by shifting $f(x)$ right 2 units and stretching vertically by a factor of 3.
- D) The graph of $f(x)$ is obtained by shifting $g(x)$ right 2 units and stretching vertically by a factor of 3.



Which describes the difference between the graph of $f(x) = x^2$ and $g(x) = -(x^2 - 2)$?

- A) The graph of $f(x)$ is obtained by flipping $g(x)$ over the x-axis and shifting up 2 units.
- B) The graph of $g(x)$ is obtained by flipping $f(x)$ over the x-axis and shifting up 2 units.
- C) The graph of $f(x)$ is obtained by flipping $g(x)$ over the x-axis and shifting left 2 units.
- D) The graph of $g(x)$ is obtained by flipping $f(x)$ over the x-axis and shifting left 2 units.