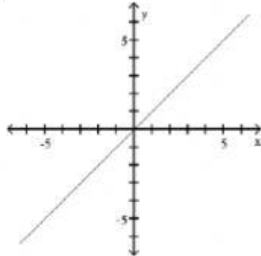


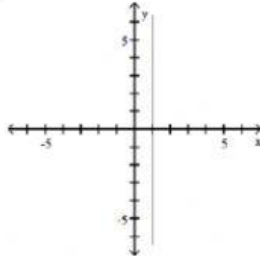
Choose the correct graph for the following equations.

1) $f(x) = x$

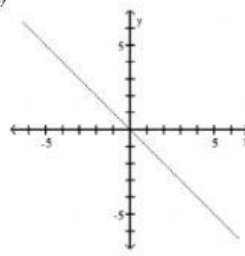
A)



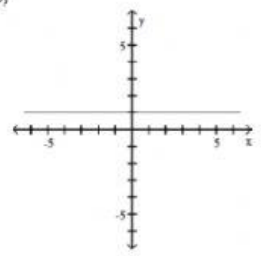
B)



C)

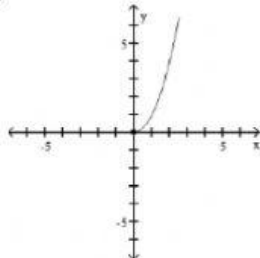


D)

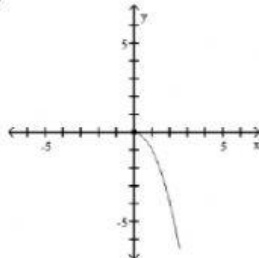


2) $f(x) = \sqrt{x}$

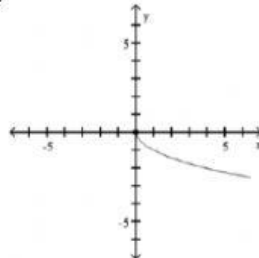
A)



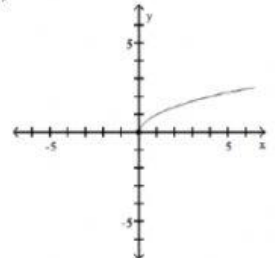
B)



C)



D)



3) Which of the following is the parent function for $y = \left(\frac{2}{3}x\right)^2$?

a. $f(x) = x$

c. $f(x) = x^2$

b. $f(x) = |x|$

d. $f(x) = \sqrt{x}$

Choose the correct description to transform the graph of f into the graph of g .

4) $f(x) = x^3$ and $g(x) = -(x + 10)^3$

A) translate 10 units left, reflect over x-axis

C) translate 10 units right, reflect over y-axis

B) translate 10 units left, reflect over y-axis

D) translate 10 units right, reflect over x-axis

5) $f(x) = |x|$ and $g(x) = |x - 8| + 7$

A) translate 8 units right and 7 units down

C) translate 7 units left and 8 units down

B) translate 8 units left and 7 units up

D) translate 8 units right and 7 units up

6) $f(x) = \frac{1}{x}$ and $g(x) = \frac{1}{x+4}$

- A) translate 4 units to the right
 B) translate 4 units to the left
 C) translate 4 units up
 D) translate 4 units down

7) Which of the following **IS** a transformation that can be used to graph the function below?

$$f(x) = -8|6(x-13)| - 16$$

- A) Vertical stretch by a factor of 8
 B) Horizontal stretch by a factor of 6
 C) Reflection over the y-axis
 D) Horizontal translation 13 units left

8) Which of the following **IS NOT** a transformation that can be used to graph the function below?

$$f(x) = \sqrt{-0.25(x-8)} + 15$$

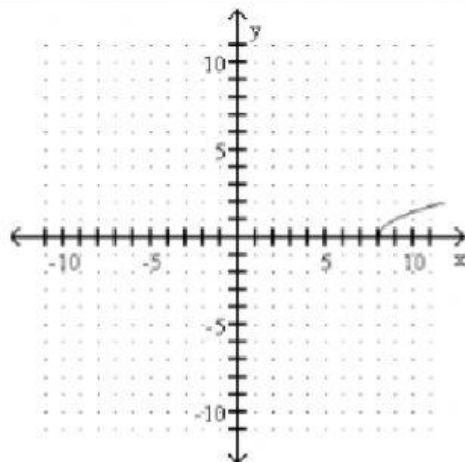
- A) Vertical translation 15 units up
 B) Horizontal translation 8 units right
 C) Reflection over the x-axis
 D) Reflection over the y-axis

Choose the correct equation for the following parent graph transformation.

- 9) The graph of $f(x) = |x|$ is vertically stretched by a factor of 8.1. This graph is then reflected across the x-axis. Finally, the graph is shifted 0.27 units downward.
- A) $g(x) = 8.1|-x| - 0.27$
 B) $g(x) = 8.1|x - 0.27|$
 C) $g(x) = -8.1|x| - 0.27$
 D) $g(x) = 8.1|x| - 0.27$

Choose the correct equation for the following parent graph transformation.

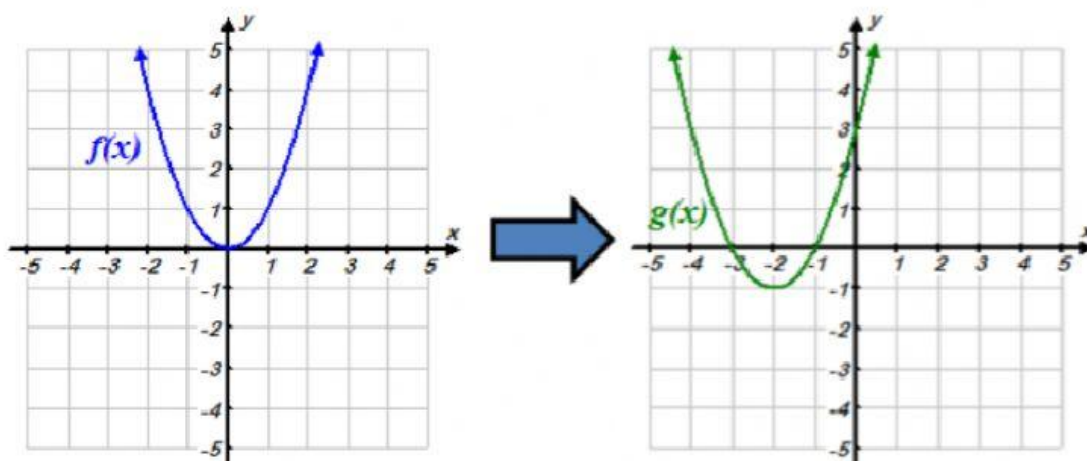
10)



- A) $f(x) = \sqrt{x+8}$
 B) $f(x) = \sqrt{x-8}$
 C) $f(x) = \sqrt{x-8}$
 D) $f(x) = \sqrt{x+8}$

Choose the correct equation for each of the following parent graph transformations.

- 11) Given the graph of the parent function is $f(x) = x^2$:

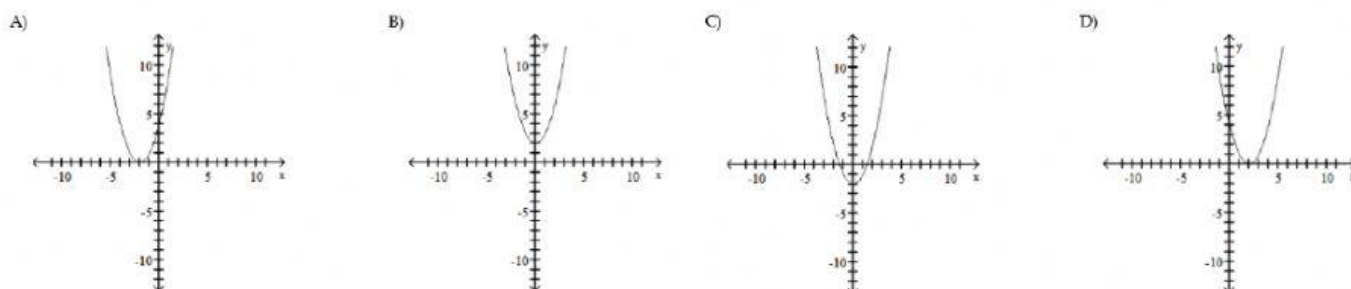


Which function below correctly describes the graph of $g(x)$?

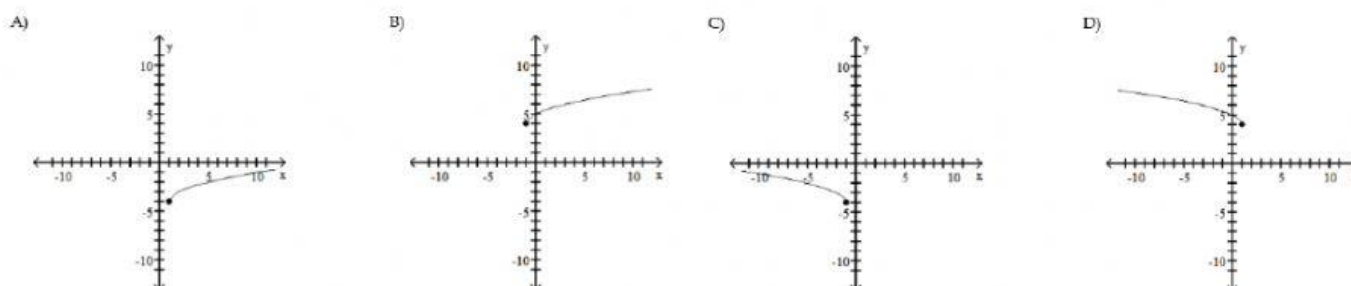
- a. $g(x) = (x-2)^2 - 1$ c. $g(x) = (x-1)^2 + 2$
 b. $g(x) = (x+2)^2 - 1$ d. $g(x) = (x+1)^2 - 2$

Choose the correct graph for each of the following equations.

- 12) $f(x) = x^2 - 2$



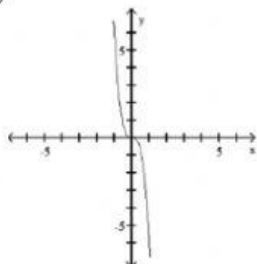
- 13) $f(x) = \sqrt{x+1} + 4$



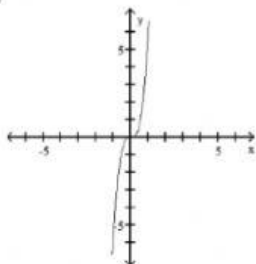
Choose the correct graph for each of the following equations.

14) $f(x) = \frac{1}{6}x^3$

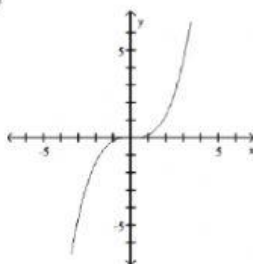
A)



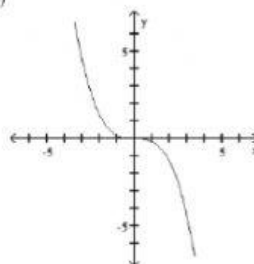
B)



C)

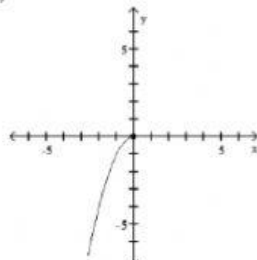


D)

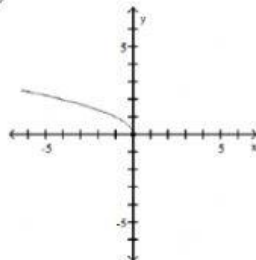


15) $f(x) = \sqrt{-x}$

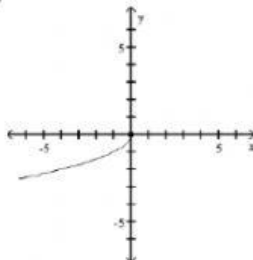
A)



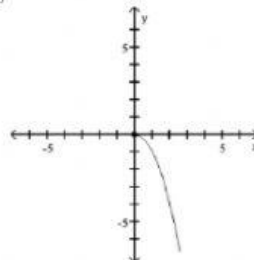
B)



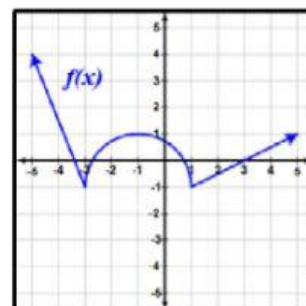
C)



D)

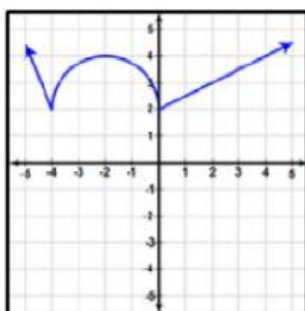


16) The parent graph of $f(x)$ is shown to the right.

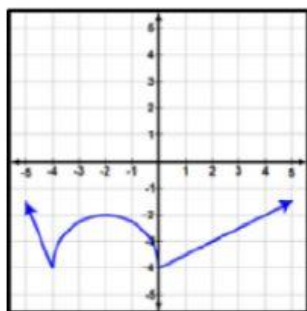


Which of the graphs below correctly shows $f(x-1) - 3$?

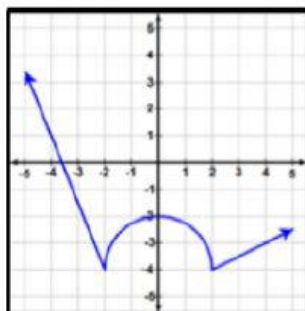
A.



B.



C.



D.

