

PRINTABLE VERSION

Quiz 12

Question 1

Determine whether the following function is even, odd, or neither.

$$f(x) = -3x^4 - x^2 - 5$$

- a) Odd
- b) Neither
- c) Even

Question 2

Suppose that $y = f(x)$ is an odd function such that $(2, -1)$ is a point on the graph of f . Which of the following points belong to the graph of f ?

- a) $(2, 1)$
- b) $(-1, -2)$
- c) $(-2, -1)$
- d) $(1, -2)$
- e) $(-2, 1)$
- f) None of the above

Question 3

What transformation is needed to go from the graph of the basic function

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

to the graph of

$$g(x) = (x - 4)^2$$

- a) Shift down 4 units
- b) Shift up 4 units
- c) Reflect across the y -axis

- d) Shift right 4 units
- e) Shift left 4 units
- f) None of the above

Question 4

What transformations are needed to go from the graph of the basic function

$$f(x) = \sqrt[3]{x}$$

to the graph of

$$g(x) = \sqrt[3]{x - 5} + 17$$

- a) Shift right 5 units, and shift down 17 units.
- b) Shift right 5 units, and shift up 17 units.
- c) Shift left 17 units, and shift up 5 units.
- d) Shift left 5 units, and shift up 17 units.
- e) Shift up 5 units.
- f) None of the above

Question 5

What transformation is needed to go from the graph of the basic function

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

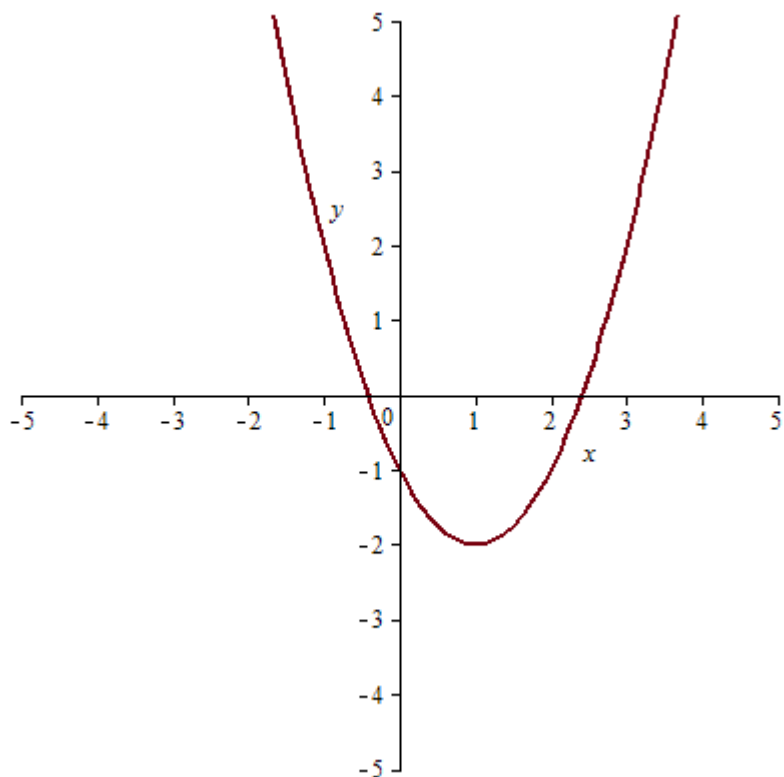
to the graph of

$$g(x) = -\sqrt{x - 11}$$

- a) Reflect across the x -axis, and shift up 11 units.
- b) Reflect across the y -axis, and shift left 11 units.
- c) Reflect across the y -axis, and shift right 11 units.
- d) Reflect across the x -axis, and shift left 11 units.
- e) Reflect across the x -axis, and shift right 11 units.
- f) None of the above

Question 6

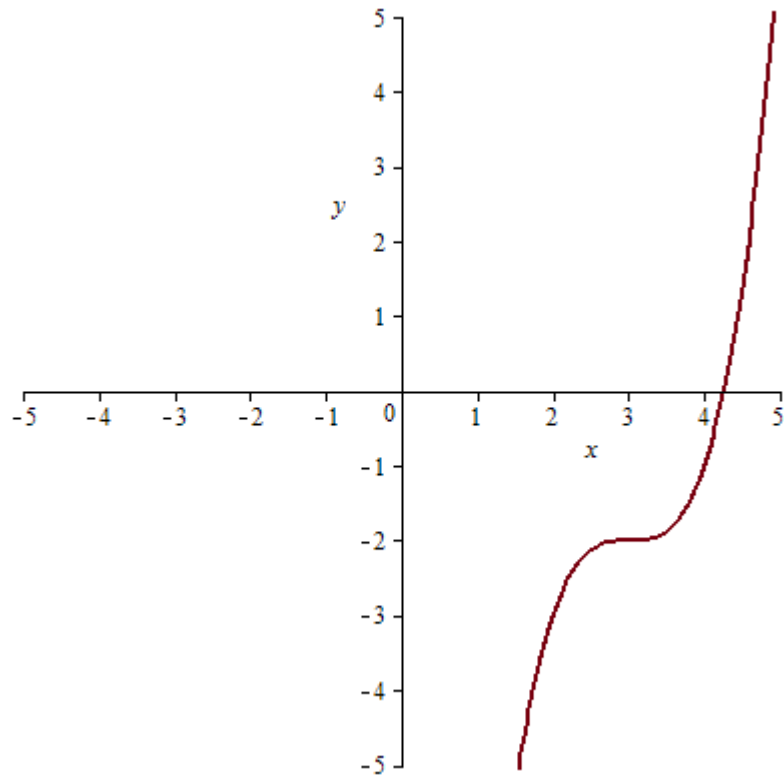
Which of the following functions matches the graph below?



- a) $f(x) = (x - 1)^2 + 2$
- b) $f(x) = (x + 1)^2 - 2$
- c) $f(x) = (x - 2)^2 - 1$
- d) $f(x) = (x - 1)^2 - 2$
- e) $f(x) = (x + 2)^2 - 1$
- f) None of the above

Question 7

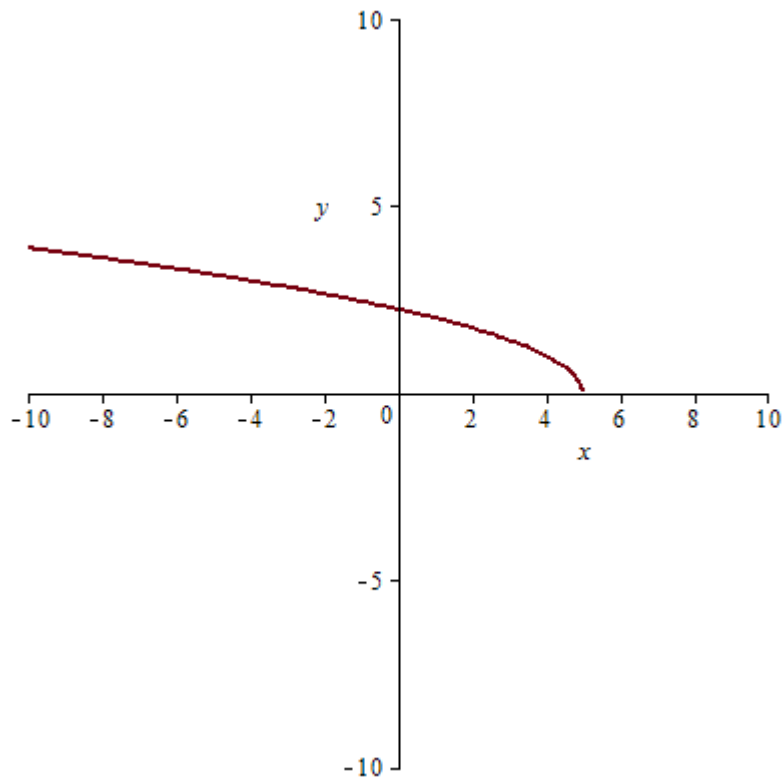
Which of the following functions matches the graph below?



- a) $f(x) = -(x - 3)^3 - 2$
- b) $f(x) = (x - 3)^3 - 2$
- c) $f(x) = (x + 3)^3 - 2$
- d) $f(x) = (x + 2)^3 - 3$
- e) $f(x) = (x - 2)^3 + 3$
- f) None of the above

Question 8

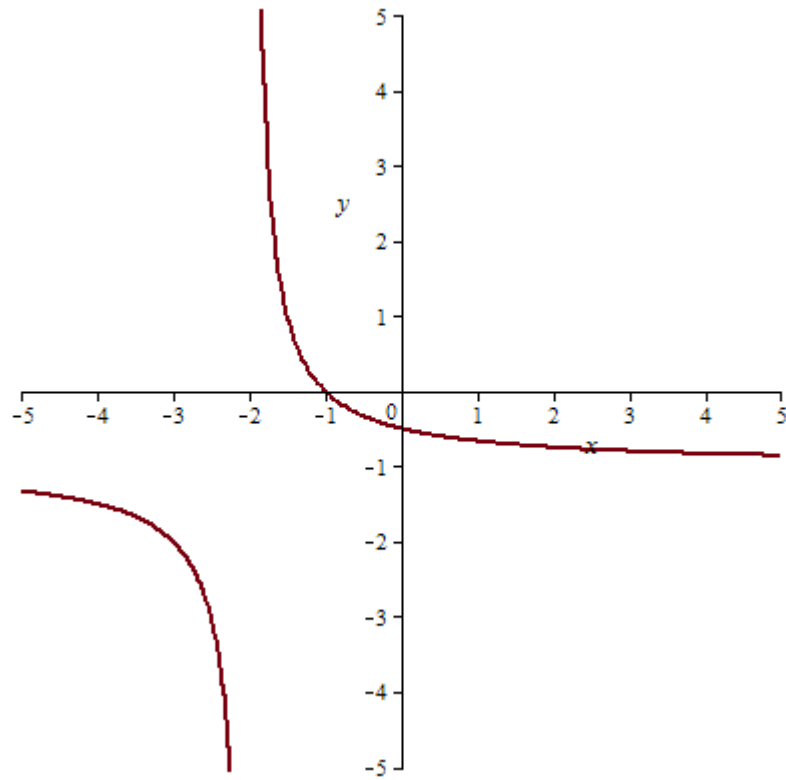
Which of the following functions matches the graph below?



- a) $f(x) = \sqrt{-x + 5}$
- b) $f(x) = \sqrt{x + 5}$
- c) $f(x) = \sqrt{x - 5}$
- d) $f(x) = -\sqrt{-5 - x}$
- e) $f(x) = -\sqrt{x + 5}$
- f) None of the above

Question 9

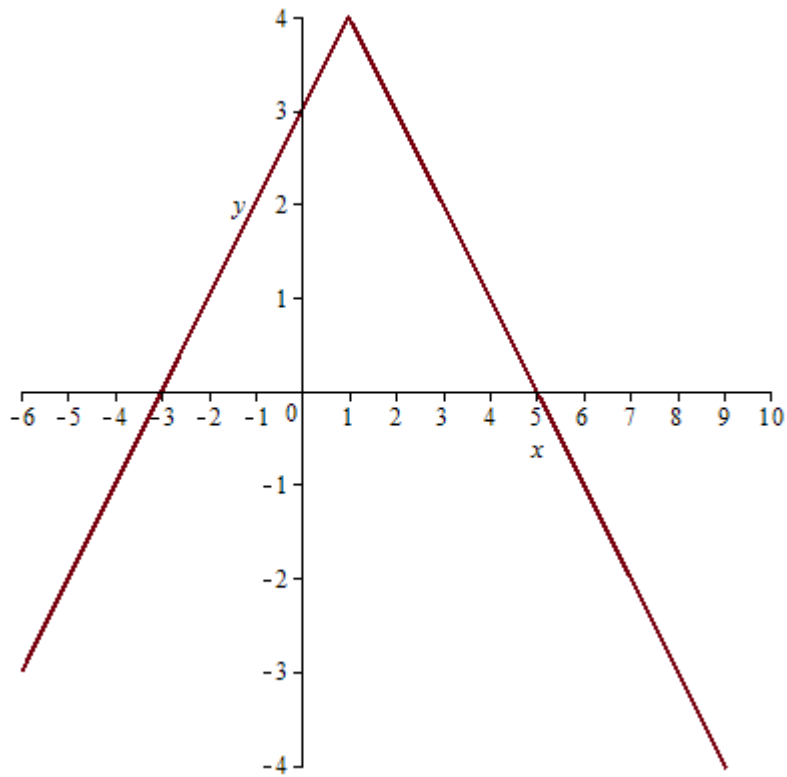
Which of the following functions matches the graph below?



- a) $f(x) = \frac{1}{x+2} - 1$
- b) $f(x) = \frac{1}{x+1} + 2$
- c) $f(x) = \frac{1}{x-1} + 2$
- d) $f(x) = \frac{1}{x+2} + 1$
- e) $f(x) = \frac{1}{x-2} - 1$
- f) None of the above

Question 10

Which of the following functions matches the graph below?



- a) $f(x) = -|x - 1| + 4$
- b) $f(x) = |x - 1| - 4$
- c) $f(x) = |x + 1| + 4$
- d) $f(x) = -|x - 1| - 4$
- e) $f(x) = |x + 1| - 4$
- f) None of the above