

# Question 1

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

Which of the following functions has the same graph as  $f$ , but shifted down two units?

A.  $g(x) = (x - 2)^2$

B.  $g(x) = (x + 2)^2$

C.  $g(x) = x^2 + 2$

D.  $g(x) = x^2 - 2$

E.  $g(x) = (x - 2)^2 + 2$

F.  $g(x) = (x - 2)^2 - 2$

# Question 1

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

Which of the following functions has the same graph as  $f$ , but shifted down two units?

A.  $g(x) = (x - 2)^2$

B.  $g(x) = (x + 2)^2$

C.  $g(x) = x^2 + 2$

D.  $g(x) = x^2 - 2$

E.  $g(x) = (x - 2)^2 + 2$

F.  $g(x) = (x - 2)^2 - 2$

D.  $g(x) = x^2 - 2$

# Question 1

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The graph of

$$y = f(x) - 2$$

matches the graph of  $f(x)$  but is shifted down two units.

# Question 2

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

Which of the following functions has the same graph as  $f$ , but shifted two units to the left?

A.  $g(x) = (x - 2)^2$

B.  $g(x) = (x + 2)^2$

C.  $g(x) = x^2 + 2$

D.  $g(x) = x^2 - 2$

E.  $g(x) = (x - 2)^2 + 2$

F.  $g(x) = (x - 2)^2 - 2$

# Question 2

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

Which of the following functions has the same graph as  $f$ , but shifted two units to the left?

A.  $g(x) = (x - 2)^2$

B.  $g(x) = (x + 2)^2$

C.  $g(x) = x^2 + 2$

D.  $g(x) = x^2 - 2$

E.  $g(x) = (x - 2)^2 + 2$

F.  $g(x) = (x - 2)^2 - 2$

B.  $g(x) = (x + 2)^2$

# Question 2

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The graph of

$$y = f(x + 2)$$

matches the graph of  $f(x)$  but is shifted two units to the left.

# Question 3

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

Which of the following functions has the graph of  $f$ , but shifted two units to the right and two down?

A.  $g(x) = (x - 2)^2$

B.  $g(x) = (x + 2)^2$

C.  $g(x) = x^2 + 2$

D.  $g(x) = x^2 - 2$

E.  $g(x) = (x - 2)^2 + 2$

F.  $g(x) = (x - 2)^2 - 2$

# Question 3

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

Which of the following functions has the graph of  $f$ , but shifted two units to the right and two down?

A.  $g(x) = (x - 2)^2$

B.  $g(x) = (x + 2)^2$

C.  $g(x) = x^2 + 2$

D.  $g(x) = x^2 - 2$

E.  $g(x) = (x - 2)^2 + 2$

F.  $g(x) = (x - 2)^2 - 2$

F.  $g(x) = (x - 2)^2 - 2$



# Question 3

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The graph of

$$y = f(x - 2)$$

matches the graph of  $f(x)$  but is shifted two units to the right.

# Question 3

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The graph of

$$y = f(x - 2)$$

matches the graph of  $f(x)$  but is shifted two units to the right.

The graph of

$$y = f(x - 2) - 2$$

matches the graph of  $f(x)$  but is shifted two units to the right and two down.

# Question 4

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

Which of the following functions has the graph of  $f$ , but shifted two units up?

A.  $g(x) = (x - 2)^2$

B.  $g(x) = (x + 2)^2$

C.  $g(x) = x^2 + 2$

D.  $g(x) = x^2 - 2$

E.  $g(x) = (x - 2)^2 + 2$

F.  $g(x) = (x - 2)^2 - 2$

# Question 4

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

Which of the following functions has the graph of  $f$ , but shifted two units up?

A.  $g(x) = (x - 2)^2$

B.  $g(x) = (x + 2)^2$

C.  $g(x) = x^2 + 2$

D.  $g(x) = x^2 - 2$

E.  $g(x) = (x - 2)^2 + 2$

F.  $g(x) = (x - 2)^2 - 2$

C.  $g(x) = x^2 + 2$

# Question 4

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The graph of

$$y = f(x) + 2$$

matches the graph of  $f(x)$  but is shifted two units up.

# Question 5

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

Which of the following functions has the graph of  $f$ , but shifted two units to the right?

A.  $g(x) = (x - 2)^2$

B.  $g(x) = (x + 2)^2$

C.  $g(x) = x^2 + 2$

D.  $g(x) = x^2 - 2$

E.  $g(x) = (x - 2)^2 + 2$

F.  $g(x) = (x - 2)^2 - 2$

# Question 5

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

Which of the following functions has the graph of  $f$ , but shifted two units to the right?

A.  $g(x) = (x - 2)^2$

B.  $g(x) = (x + 2)^2$

C.  $g(x) = x^2 + 2$

D.  $g(x) = x^2 - 2$

E.  $g(x) = (x - 2)^2 + 2$

F.  $g(x) = (x - 2)^2 - 2$

A.  $g(x) = (x - 2)^2$

# Question 5

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The graph of

$$y = f(x - 2)$$

matches the graph of  $f(x)$  but is shifted two units to the right.



# Question 6

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$$f(x) = x^2 + 3x - 2$$

Which of the following functions has the graph of  $f$  reflected across the  $x$ -axis?

A.  $g(x) = -x^2 - 3x + 2$

B.  $g(x) = x^2 - 3x - 2$

C.  $g(x) = (x - 1)^2 + 3(x - 1) - 2$

D.  $g(x) = x^2 + 3x - 4$

E.  $g(x) = -x^2 - 3x$

F.  $g(x) = x^2 - 3x + 2$

# Question 6

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$$f(x) = x^2 + 3x - 2$$

Which of the following functions has the graph of  $f$  reflected across the  $x$ -axis?

A.  $g(x) = -x^2 - 3x + 2$

B.  $g(x) = x^2 - 3x - 2$

C.  $g(x) = (x - 1)^2 + 3(x - 1) - 2$

D.  $g(x) = x^2 + 3x - 4$

E.  $g(x) = -x^2 - 3x$

F.  $g(x) = x^2 - 3x + 2$

A.  $g(x) = -x^2 - 3x + 2$

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# Question 6

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The graph of

$$y = -f(x)$$

matches the graph of  $f(x)$  but is reflected across the  $x$ -axis.

# Question 7

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$$f(x) = x^2 + 3x - 2$$

Which of the following functions has the graph of  $f$  reflected across the  $y$ -axis?

A.  $g(x) = -x^2 - 3x + 2$

B.  $g(x) = x^2 - 3x - 2$

C.  $g(x) = (x - 1)^2 + 3(x - 1) - 2$

D.  $g(x) = x^2 + 3x - 4$

E.  $g(x) = -x^2 - 3x$

F.  $g(x) = x^2 - 3x + 2$

# Question 7

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$$f(x) = x^2 + 3x - 2$$

Which of the following functions has the graph of  $f$  reflected across the  $y$ -axis?

A.  $g(x) = -x^2 - 3x + 2$

D.  $g(x) = x^2 + 3x - 4$

B.  $g(x) = x^2 - 3x - 2$

E.  $g(x) = -x^2 - 3x$

C.  $g(x) = (x - 1)^2 + 3(x - 1) - 2$

F.  $g(x) = x^2 - 3x + 2$

B.  $g(x) = x^2 - 3x - 2$

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# Question 7

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The graph of

$$y = f(-x)$$

matches the graph of  $f(x)$  but is reflected across the  $y$ -axis.

# Question 8

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$$f(x) = x^2 + 3x - 2$$

Which of the following functions has the graph of  $f$  reflected across the  $x$ -axis and shifted down 2 units?

A.  $g(x) = -x^2 - 3x + 2$

B.  $g(x) = x^2 - 3x - 2$

C.  $g(x) = (x - 1)^2 + 3(x - 1) - 2$

D.  $g(x) = x^2 + 3x - 4$

E.  $g(x) = -x^2 - 3x$

F.  $g(x) = x^2 - 3x + 2$

# Question 8

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$$f(x) = x^2 + 3x - 2$$

Which of the following functions has the graph of  $f$  reflected across the  $x$ -axis and shifted down 2 units?

A.  $g(x) = -x^2 - 3x + 2$

B.  $g(x) = x^2 - 3x - 2$

C.  $g(x) = (x - 1)^2 + 3(x - 1) - 2$

D.  $g(x) = x^2 + 3x - 4$

E.  $g(x) = -x^2 - 3x$

F.  $g(x) = x^2 - 3x + 2$

E.  $g(x) = -x^2 - 3x$



# Question 8

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The graph of

$$y = -f(x)$$

matches the graph of  $f(x)$  but is reflected across the  $x$ -axis.

# Question 8

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The graph of

$$y = -f(x)$$

matches the graph of  $f(x)$  but is reflected across the  $x$ -axis.

The graph of

$$y = -f(x) - 2$$

matches the graph of  $f(x)$  but reflected across the  $x$ -axis and shifted two units down.