Review Quiz: Quiz 2 (Chapter 2)

Close

Score: 1 of 1 pt | 1 of 20 | **Test Score:** 100%, 20 of 20 pts

2.1.15

Find the distance between the two points and the midpoint of the line segment joining them.

(3, −2) and (0, −3)

The distance is $\sqrt{10}$.

(Simplify your answer. Type an exact answer, using radicals as needed.)

The midpoint is $\left(\frac{3}{2}, -\frac{5}{2}\right)$.

(Type an ordered pair. Simplify your answer.)

Question is complete.

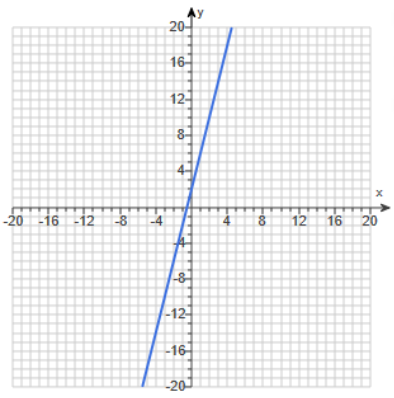
Score: 1 of 1 pt | 2 of 20 | **Test Score:** 100%, 20 of 20 pts

2.2.25

Graph the equation.

$y = 4x + 2$

Use the graphing tool to graph the line.



Question is complete.

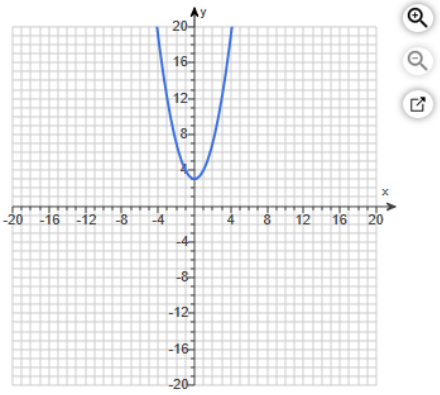
Score: 1 of 1 pt | 3 of 20 | **Test Score:** 100%, 20 of 20 pts

2.2.35

Graph the following equation by plotting points.

$y = 3 + x^2$

Use the graphing tool to graph the equation.



Question is complete.

Score: 1 of 1 pt | 4 of 20 | **Test Score:** 100%, 20 of 20 pts

2.2.49

Without sketching the graph, find the x-intercepts and y-intercepts of the graph of the equation.

$y = x^2 - 3x - 10$

What is/are the x-intercept(s)? Select the correct choice below and, if necessary, fill in the answer box within your choice.

A. The x-intercept(s) is/are $5, -2$.
(Type an integer or a simplified fraction. Use a comma to separate answers as needed.)

B. There are no x-intercepts.

What is/are the y-intercept(s)? Select the correct choice below and, if necessary, fill in the answer box within your choice.

A. The y-intercept(s) is/are -10.
(Type an integer or a simplified fraction. Use a comma to separate answers as needed.)

B. There are no y-intercepts.

Question is complete.

Score: 1 of 1 pt | 5 of 20 | **Test Score:** 100%, 20 of 20 pts

2.2.63

Test the equation for symmetry with respect to the x-axis, the y-axis, and the origin.

$y = 7x^5 + 8x^7$

Is the equation symmetric with respect to the x-axis? Choose the correct answer below.

- [x] No
- [ ] Yes

Is the equation symmetric with respect to the y-axis? Choose the correct answer below.

- [ ] Yes
- [x] No

Is the equation symmetric with respect to the origin? Choose the correct answer below.

- [x] Yes
- [ ] No

Question is complete.

Score: 1 of 1 pt | 6 of 20 | **Test Score:** 100%, 20 of 20 pts

2.3.41

Use the given conditions to find an equation in slope-intercept form of the following nonvertical line.

$m = -\frac{5}{7}$; y-intercept = 5

The equation in slope-intercept form is

- [ ] A. $-\frac{5}{7}x + 5y = 0$
- [ ] B. $y + \frac{5}{7}x = 5$
- [x] C. $y = -\frac{5}{7}x + 5$
- [ ] D. $y = 5x - \frac{5}{7}$

Question is complete.

Score: 1 of 1 pt | 7 of 20 | **Test Score:** 100%, 20 of 20 pts

2.4.39

Find the domain of the following function.

$$f(x) = \frac{1}{x+8}$$

Choose the correct domain below.

- A. $(-\infty, -8]$ or $[-8, \infty)$
- B. $(-8, \infty)$
- C. $(-\infty, -8)$
- D. $(-\infty, -8)$ or $(-8, \infty)$

Question is complete.

Review Quiz: Quiz 2 (Chapter 2)

Close

Score: 1 of 1 pt | 8 of 20 | **Test Score:** 100%, 20 of 20 pts

2.4.45

Find the domain of the function.

$$f(x) = \frac{x+1}{x^2+2x-3}$$

Choose the correct domain below.

- A. $(-\infty, -1) \cup (-1, 3) \cup (3, \infty)$
- B. $(-\infty, -3) \cup (-3, 1) \cup (1, \infty)$
- C. $(-\infty, \infty)$
- D. $(-\infty, -3) \cup (-3, 2) \cup (2, \infty)$

Question is complete.

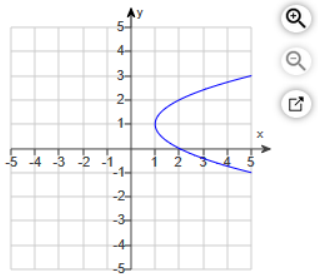
Score: 1 of 1 pt | 9 of 20 | **Test Score:** 100%, 20 of 20 pts

2.4.53

Use the vertical line test to determine whether the graph is the graph of a function.

Is this the graph of a function?

- [x] No
- [ ] Yes



Question is complete.

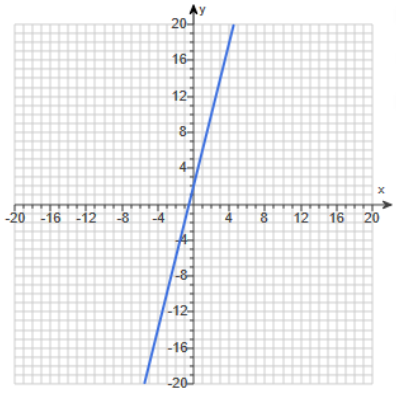
Score: 1 of 1 pt | 2 of 20 | **Test Score:** 100%, 20 of 20 pts

2.2.25

Graph the equation.

$y = 4x + 2$

Use the graphing tool to graph the line.

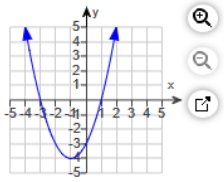


Question is complete.

Score: 1 of 1 pt | 11 of 20 | **Test Score:** 100%, 20 of 20 pts

2.5.9

Use the graph to determine
a. intervals on which the function is increasing, if any.
b. intervals on which the function is decreasing, if any.



a. Use the graph to determine intervals on which the function is increasing, if any. Select the correct choice below and, if necessary, fill in the answer box within your choice.

A. The interval(s) on which the function is increasing is/are $(-1,\infty)$.
(Type your answer in interval notation.)
B. There is no interval on which the function is increasing.

b. Use the graph to determine intervals on which the function is decreasing, if any. Select the correct choice below and, if necessary, fill in the answer box within your choice.

A. The interval(s) on which the function is decreasing is/are $(-\infty,-1)$.
(Type your answer in interval notation.)
B. There is no interval on which the function is decreasing.

Question is complete.

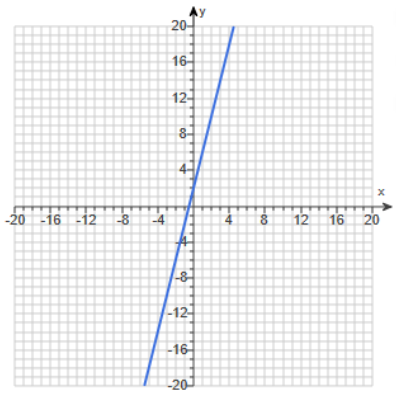
Score: 1 of 1 pt | 2 of 20 | **Test Score:** 100%, 20 of 20 pts

2.2.25

Graph the equation.

$y = 4x + 2$

Use the graphing tool to graph the line.

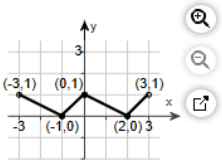


Question is complete.

Score: 1 of 1 pt | 13 of 20 | **Test Score:** 100%, 20 of 20 pts

2.5.29

Using the given graph of the function f, find whether the function is even, odd, or neither.



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

- Even
- Odd
- Neither

Question is complete.

Score: 1 of 1 pt | 14 of 20 | **Test Score:** 100%, 20 of 20 pts

2.5.35

Determine if the function is even, odd, or neither.

$f(x) = x^7 + x^3$

The function f is:

- A. odd
- B. even
- C. neither

Question is complete.

Score: 1 of 1 pt | 15 of 20 | **Test Score:** 100%, 20 of 20 pts

2.7.7

Describe the transformations that produce the graphs of g and h from the graph of f.

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

(a) $g(x) = \sqrt{x} + 2$ **(b)** $h(x) = \sqrt{x} - 3$

(a) Describe the transformations that produce the graph of g from the graph of f. Choose the correct answer below.

- A. Shift 2 units down
- B. Shift 2 units to the right
- C. Shift 2 units to the left
- D. Shift 2 units up ✔

(b) Describe the transformations that produce the graph of h from the graph of f. Choose the correct answer below.

- A. Shift 3 units up
- B. Shift 3 units to the left
- C. Shift 3 units to the right
- D. Shift 3 units down ✔

Question is complete.

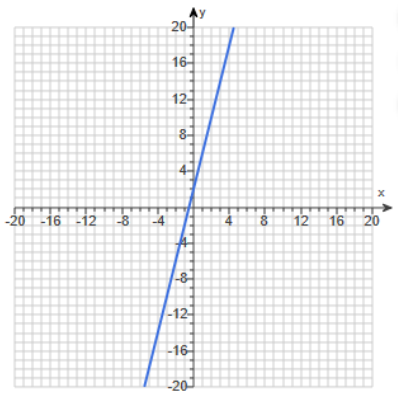
Score: 1 of 1 pt | 2 of 20 | **Test Score:** 100%, 20 of 20 pts

2.2.25

Graph the equation.

$y = 4x + 2$

Use the graphing tool to graph the line.



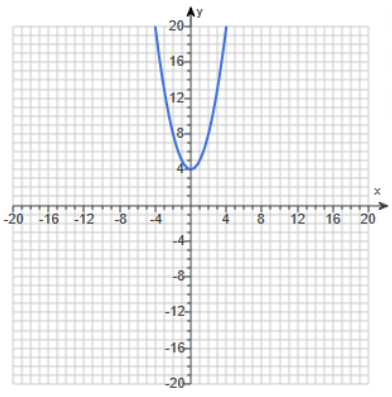
Question is complete.

Score: 1 of 1 pt | 17 of 20 | **Test Score:** 100%, 20 of 20 pts

2.7.33

Use the transformations on $f(x) = x^2$ to graph the function $f(x) = x^2 + 4$.

Use the graphing tool to graph the function.



Question is complete.

Score: 1 of 1 pt | 18 of 20 | **Test Score:** 100%, 20 of 20 pts

2.8.39

The functions f and g are given. Evaluate $f \circ g$ and find the domain of the composite function $f \circ g$.

$f(x) = \sqrt{x-2}$; $g(x) = 1 - 4x$

$(f \circ g)(x) = \sqrt{-4x-1}$

(Simplify your answer. Type an exact answer, using radicals as needed.)

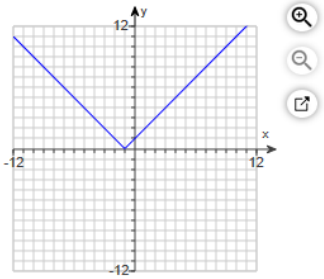
The domain of $f \circ g$ is $\left(-\infty, -\frac{1}{4}\right]$.

(Type your answer in interval notation. Use integers or fractions for any numbers in the expression.)

Question is complete.

2.9.9

Determine whether the graph of the function is the graph of a one-to-one function.



Is the function one-to-one?

- [x] No
- [ ] Yes

Question is complete.

Score: 1 of 1 pt 20 of 20 **Test Score:** 100%, 20 of 20 pts

2.9.49

The function $f(x)=\frac{7}{x-4}$ is one-to-one.

(a) Find the inverse of f.
(b) State the domain and range of f.
(c) State the domain and range of f^{-1}.
(d) Graph f, f^{-1}, and $y=x$ on the same set of axes.

(a) Find the inverse of f.

$f^{-1}(x)=\frac{7}{x}+4$

(b) State the domain of f. Select the correct choice below and, if necessary, fill in the answer box within your choice.

- [x] A. The domain of f is $\{x|\, x\neq 4\}$.
  (Type an inequality. Use integers or fractions for any numbers in the expression.)
- [ ] B. The domain of f is all real numbers.

State the range of f. Select the correct choice below and, if necessary, fill in the answer box within your choice.

- [x] A. The range of f is $\{y|\, y\neq 0\}$.
  (Type an inequality. Use integers or fractions for any numbers in the expression.)
- [ ] B. The range of f is all real numbers.

(c) State the domain of f^{-1}. Select the correct choice below and, if necessary, fill in the answer box within your choice.

(c) State the domain of f^{-1}. Select the correct choice below and, if necessary, fill in the answer box within your choice.

A. The domain of f^{-1} is $\{x \mid x \neq 0\}$.
(Type an inequality. Use integers or fractions for any numbers in the expression.)

B. The domain of f^{-1} is all real numbers.

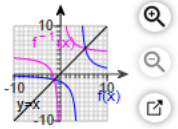
State the range of f^{-1}. Select the correct choice below and, if necessary, fill in the answer box within your choice.

A. The range of f^{-1} is $\{y \mid y \neq 4\}$.
(Type an inequality. Use integers or fractions for any numbers in the expression.)

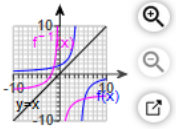
B. The range of f^{-1} is all real numbers.

(d) Graph f, f^{-1}, and $y = x$ on the same set of axes. Choose the correct graph below.

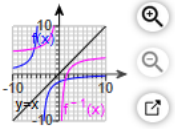
A.



B.



C.



D.