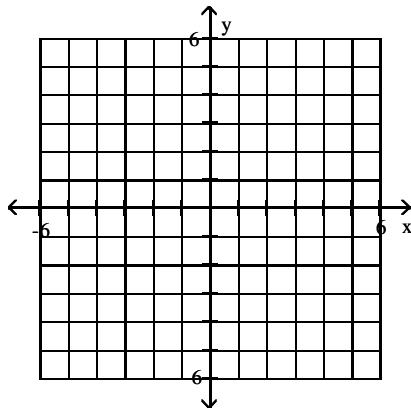


Plot the two points given by the ordered pairs.

- 1) A(-2, -2), B(-4, 2)



Find the requested measurement.

- 4) The points (-2, -3) and (10, -3) are the endpoints of the diameter of a circle. Find the length of the radius of the circle.

- 5) The point (-2, -3) is on a circle that has center (5, 2). Find the length of the diameter of the circle.

Determine whether the given ordered pair is a solution of the given equation.

- 2) (5, 2); $y = -3x + 17$

Decide whether or not the points are the vertices of a right triangle.

- 6) (-9, 8), (-3, 10), (-4, 5)

Find the distance between the pair of points.

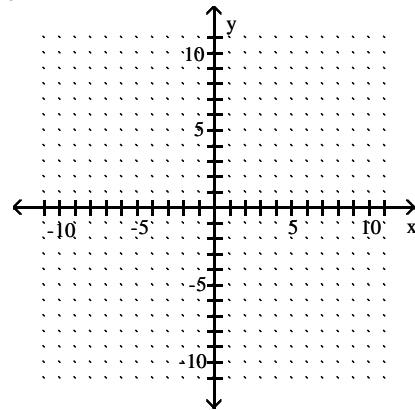
- 3) (-5, -2) (7, 2)

Find the midpoint of the line segment joining the two points.

- 7) (2, 0) and (-1, 7)

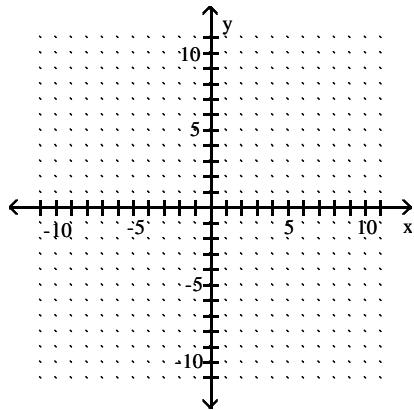
8) $(-1, 3)$ and $(5, -4)$

10) $y = x^2 + 5$



Graph the equation.

9) $2x + y = -2$



Find an equation for the circle.

11) Center $(11, 12)$, containing the origin

12) Center at $(3, -6)$, radius $\sqrt{2}$

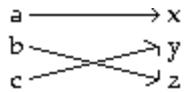
Find the center and radius of the circle.

13) $x^2 + y^2 = 1$

14) $x^2 + (y + 5)^2 = 36$

Is the following correspondence a function?

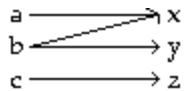
17)



Determine which window best shows the shape of the graph and where it crosses the x-axis and the y-axis.

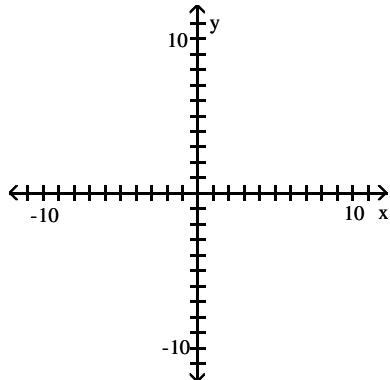
15) $y = -4x + 60$

18)



Using a graphing calculator, graph the circle.

16) $(x - 2)^2 + (y + 4)^2 = 9$



Tell whether or not the relation is a function.

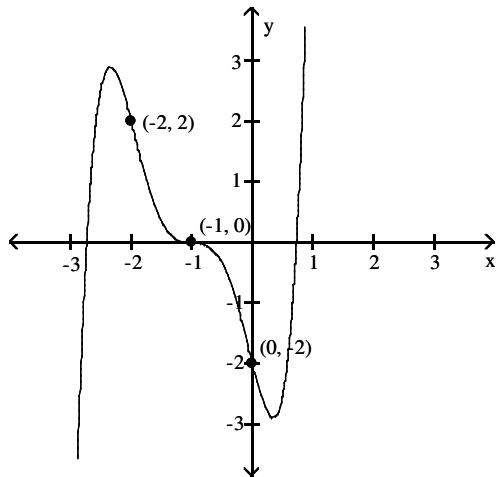
19) $\{(-5, 9), (-2, 6), (3, -4), (3, -4)\}$

Determine the domain and range of the relation.

20) $\{(-7, 9), (-7, 1), (-3, -3), (10, -5), (6, 3)\}$

Evaluate as requested.

- 21) A graph of a function g is shown below. Find $g(-2)$.



Find the domain of the function.

24) $f(x) = 3x^2 + 4x - 3$

25) $f(x) = \frac{1}{x^2 + 4x - 21}$

By graphing the function, visually estimate its domain and range.

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

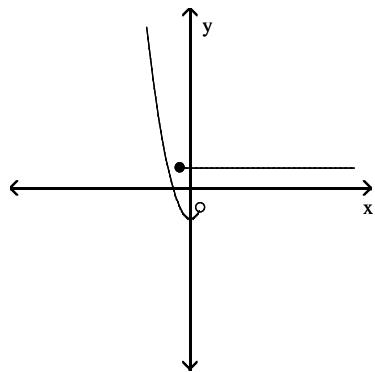
- 22) Given that $f(x) = 9x^2 - 6x + 3$, find $f(-x)$.

27) $h(x) = |x| - 9$

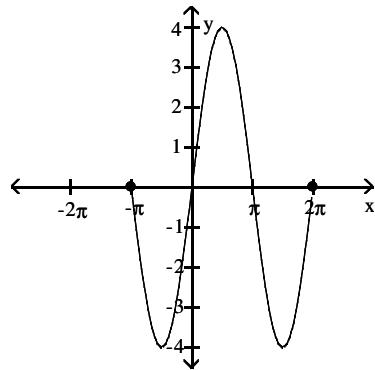
- 23) Given that $g(x) = 2x^3$, find $g(4 + h)$.

Determine whether the graph is the graph of a function.

28)

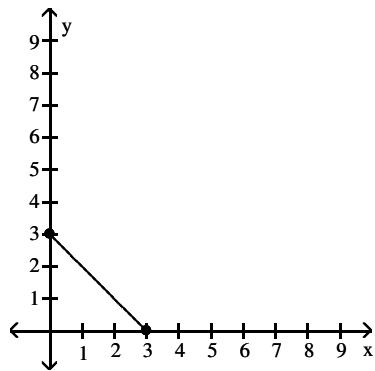


30)



Find the domain and range of the function represented in the graph.

29)



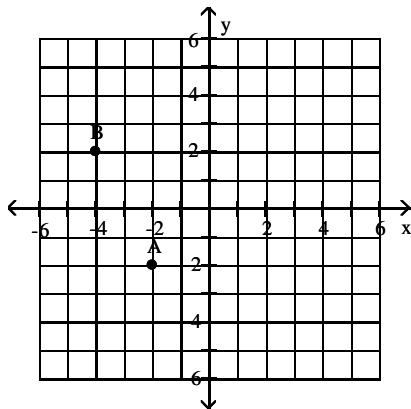
Solve the problem.

31) The function h described by

$h(t) = -16t^2 + 33.1t + 124.26$ gives the height of a ball thrown upward with a speed of 33.1 feet per second from a 124.26 ft high window t seconds after it is thrown until it hits the ground. Find the height of the ball 1.7 seconds after it is thrown.

Answer Key

Testname: 2.1-2.2



1)

2) Yes

3) $4\sqrt{10}$

4) 6

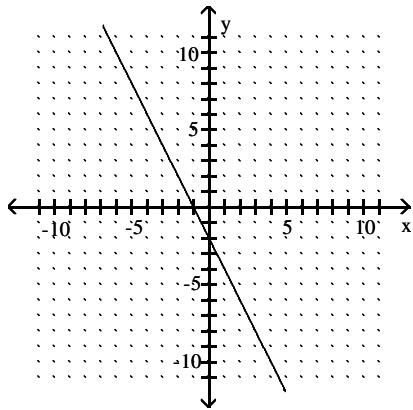
5) $2\sqrt{74}$

6) No

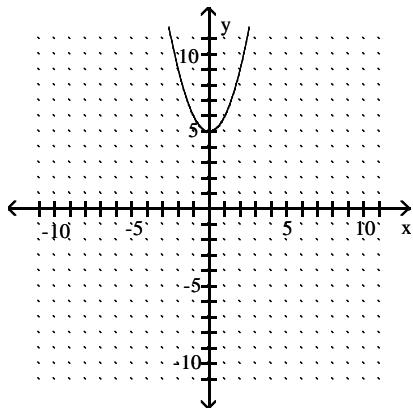
7) $\left(\frac{1}{2}, \frac{7}{2}\right)$

8) $\left(2, -\frac{1}{2}\right)$

9)



10)



11) $(x - 11)^2 + (y - 12)^2 = 265$

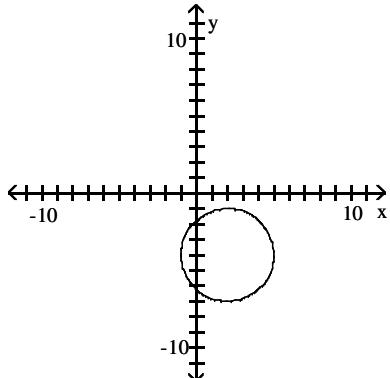
12) $(x - 3)^2 + (y + 6)^2 = 2$

13) Center: (0, 0); radius: 1

14) Center: (0, -5); radius: 6

15) [-20, 20, -20, 20], Xscl = 5, Yscl = 5

16)



17) Yes

18) No

19) No

20) D = {-7, -3, 6, 10}; R = {1, -3, 3, -5, 9}

21) 2

22) $f(-x) = 9x^2 + 6x + 3$

23) $g(4 + h) = 128 + 96h + 24h^2 + 2h^3$

24) $(-\infty, \infty)$

25) $(-\infty, -7) \cup (-7, 3) \cup (3, \infty)$

26) Domain = $[2, \infty)$; range = $(0, \infty)$

27) Domain = $(-\infty, \infty)$; range = $[-9, \infty)$

28) No

29) Domain: $[0, 3]$; Range: $[0, 3]$

30) Domain: $[-\pi, 2\pi]$; Range: $[-4, 4]$

31) 134.29 ft