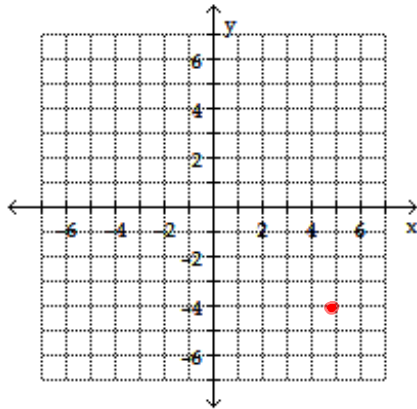


Plot the point in the rectangular coordinate system.

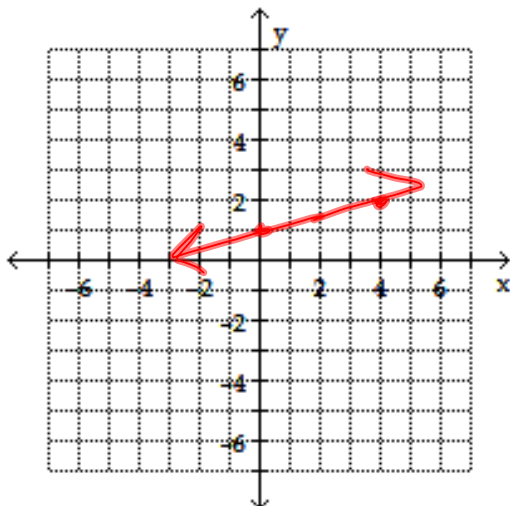
1) $(5, -4)$



Nov 16-9:10 AM

Graph the equation.

2) $y = \frac{1}{4}x + 1$



Nov 16-9:10 AM

Find f of each given value of x .

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

a. $f(-3)$

b. $f(-8)$

a. $f(-3) = -3^2 + 4$
 $9 + 4 = 13$

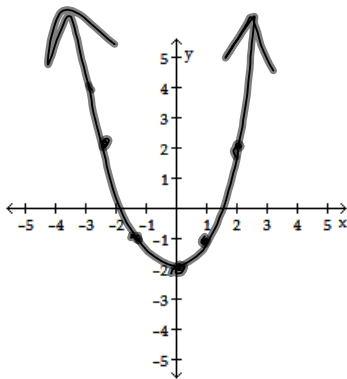
b. $f(-8) = -8^2 + 4$
 $64 + 4 = 68$

Nov 16-9:10 AM

Evaluate $f(x)$ for the given values for x . Then use the ordered pairs $(x, f(x))$ from your table to graph the function.

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

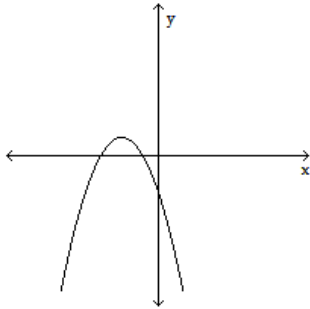
x	$f(x)$
-2	2
-1	-1
0	-2
1	-1
2	2



Nov 16-9:11 AM

Use the vertical line test to determine if y is a function of x .

5)

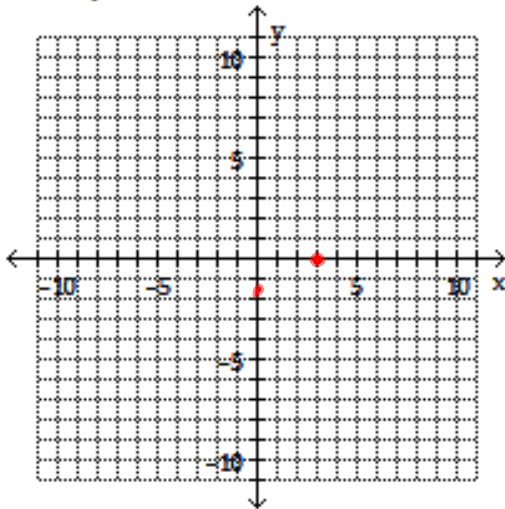


It is a function

Nov 16-9:11 AM

Use the x - and y -intercepts to graph the linear equation.

6) $2x - 4y = 6$

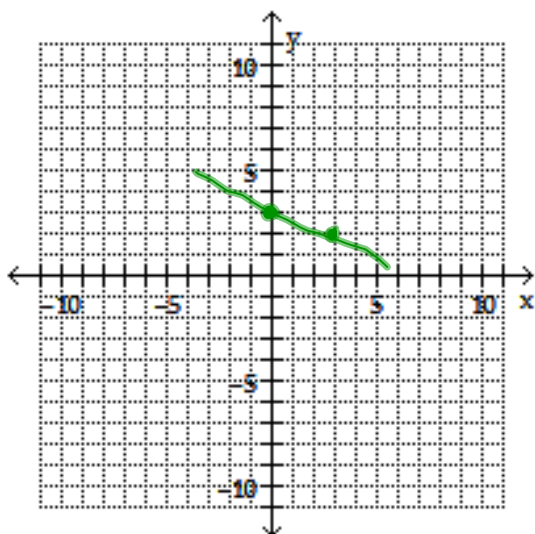


$$\begin{aligned} 2x - 4y &= 6 \\ 2x - 4(0) &= 6 \\ x &= 3 \\ 2(0) - 4y &= 6 \\ y &= -\frac{3}{2} \\ &= -1.5 \end{aligned}$$

Nov 16-9:12 AM

Find the slope and y-intercept.

7) $y = -\frac{1}{3}x + 3$



Nov 16-9:12 AM

Calculate the slope of the line passing through the given points. If the slope is undefined, so state. Then indicate whether the line rises, falls, is horizontal, or is vertical.

8) $(-9, -4), (-9, 7)$

$x_1 \ y_1 \ x_2 \ y_2$

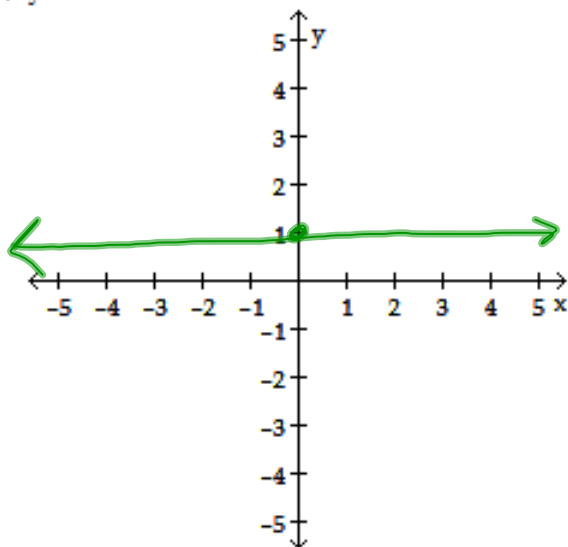
$$\frac{7 - (-4)}{-9 - (-9)} = \frac{11}{0}$$

undefined

Nov 16-9:13 AM

Graph the horizontal or vertical line.

9) $y = 1$



Nov 16-9:13 AM

Solve the problem.

- 10) The exponential function $P = 7(1.03)^x$ describes the price P , in dollars, of a movie ticket in a local cinema x years after 2001, assuming a yearly inflation rate of 3%. What was the ticket price as of 2001? What will the price be in 2010? $\rightarrow 7$

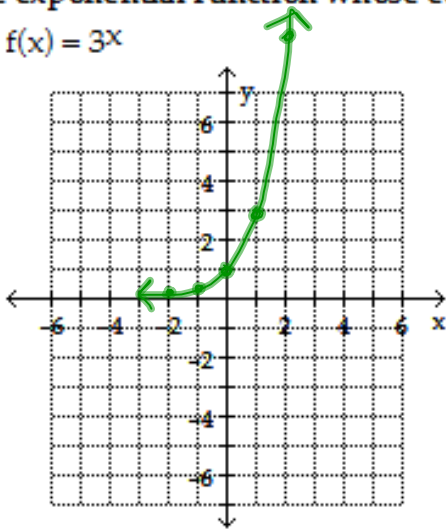
\rightarrow

$$P = 7(1.03)^9$$
$$\boxed{P = 9.13}$$

Nov 16-9:13 AM

Graph the exponential function whose equation is given.

11) $f(x) = 3^x$



X	Y
-2	1/9
-1	1/3
0	1
1	3
2	9



Nov 16-9:14 AM

Find the vertex for the parabola whose equation is given.

12) $y = x^2 + 10x + 2$



$$\begin{aligned}x &= \frac{-b}{2a} \\ &= \frac{-10}{2(1)} = \frac{-10}{2} = -5 \\ y &= (-5)^2 + 10(-5) + 2 \\ y &= 25 - 50 + 2 \\ &= -50 + 2 \\ &= \boxed{-48}\end{aligned}$$

Nov 16-9:14 AM

Solve the problem.

13) The quadratic function

$y = 0.0036x^2 - 0.46x + 36.31$ models the median, or average, age, y , at which U.S. men were first married x years after 1900. In which year was this average age at a minimum? (Round to the nearest year.) What was the average age at first marriage for that year? (Round to the nearest tenth.)

$$y = .0036(64)^2 + 0.46(64) + 36.31 = \frac{0.46}{0.0072} = 64$$
$$.0036(4096) + 29.44 + 36.31$$
$$\boxed{81}$$

Nov 16-9:15 AM

Find the y-intercepts for the parabola whose equation is given. If the y-intercepts are irrational, round your answers to the nearest tenth.

14) $y = x^2 - 5x + 1$

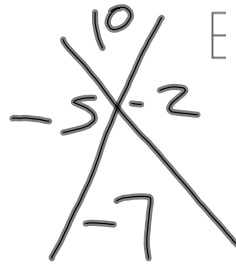
$$(0, 1)$$
$$(0, 1)$$

Nov 16-9:15 AM

Find the x-intercepts for the parabola whose equation is given. If the x-intercepts are irrational, round your answers to the nearest tenth.

15) $y = 2x^2 - 7x + 5$

$$0 = 2x^2 - 7x + 5$$



$$(x - \frac{5}{2})(x - 2)$$

$$(x - \frac{5}{2})(x - 1)$$

$$(2x - 5)(x - 1)$$

$$2x - 5 = 0$$

$$x - 1 = 0$$

$$\frac{2x}{2} = \frac{5}{2}$$

$$x = 1$$

$$x = \frac{5}{2}$$

$$(\frac{5}{2}, 0) (1, 0)$$

Nov 16-9:15 AM

Nov 16-11:32 AM