

Name _____

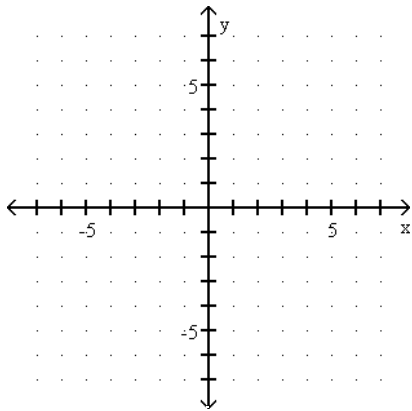
Directions: This review must be completed by Thursday, March 19th at 10am. In order to receive extra credit, you must bring me your work during my office hours or make an appt. to come see me in my office.

Determine the slope and y-intercept of the function.

$$1) f(x) = -\frac{7}{6}x - 8$$

Use the slope and y-intercept to graph the linear function.

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



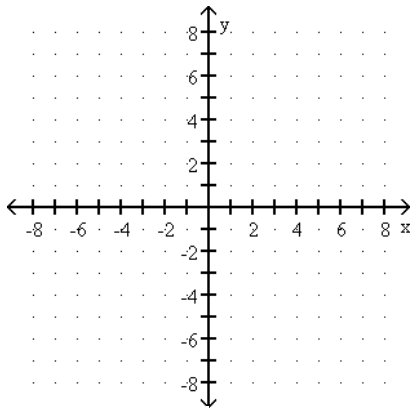
Determine whether the given function is linear or nonlinear. If it is linear, determine the slope.

3)

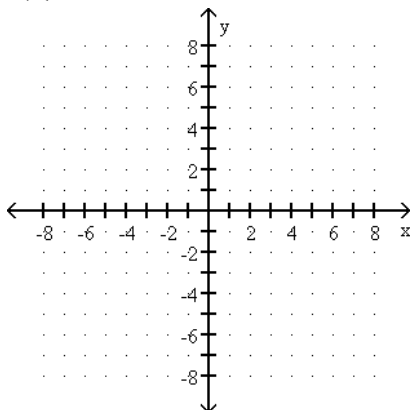
x	y = f(x)
5	10
9	18
13	26
17	34

Graph the function. State whether it is increasing, decreasing, or constant.

$$4) h(x) = -5x + 6$$



5) $f(x) = -1$



Solve the problem.

6) Suppose that $f(x) = -x - 8$ and $g(x) = x - 15$.

(a) Solve $f(x) = 0$.

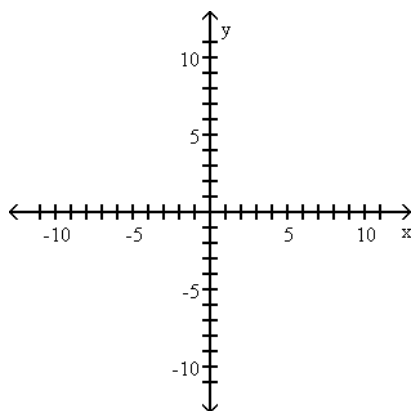
(b) Solve $g(x) = 0$.

(c) Solve $f(x) = g(x)$.

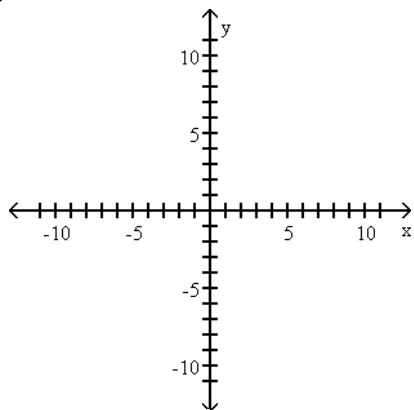
7) A truck rental company rents a moving truck one day by charging \$31 plus \$0.09 per mile. Write a linear equation that relates the cost C , in dollars, of renting the truck to the number x of miles driven. What is the cost of renting the truck if the truck is driven 180 miles?

Graph the function f by starting with the graph of $y = x^2$ and using transformations (shifting, compressing, stretching, and/or reflection).

8) $f(x) = \frac{1}{5}x^2$



9) $f(x) = x^2 + 8x + 7$

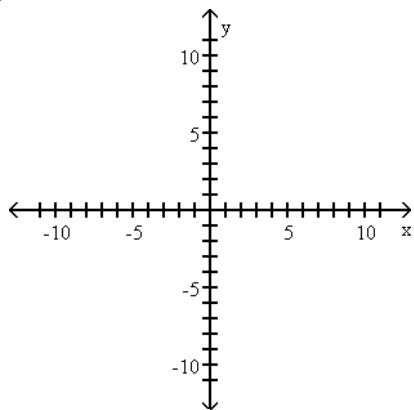


Find the vertex and axis of symmetry of the graph of the function.

10) $f(x) = -7x^2 - 14x - 3$

Graph the function using its vertex, axis of symmetry, and intercepts.

11) $f(x) = x^2 + 4x - 5$



Determine, without graphing, whether the given quadratic function has a maximum value or a minimum value and then find that value.

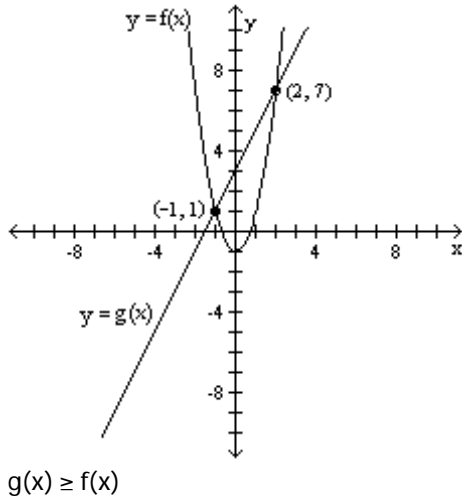
12) $f(x) = x^2 + 2x + 1$

Solve the problem.

- 13) The manufacturer of a CD player has found that the revenue R (in dollars) is $R(p) = -5p^2 + 1120p$, when the unit price is p dollars. If the manufacturer sets the price p to maximize revenue, what is the maximum revenue to the nearest whole dollar?

Use the figure to solve the inequality.

14)



Solve the inequality.

15) $x^2 - 5x - 6 \leq 0$

16) $x^2 - 12x + 35 > 0$

Solve the problem.

- 17) A coin is tossed upward from a balcony 232 feet high with an initial velocity of 16 feet per second. During what interval of time will the coin be at a height of at least 40 feet? ($h = -16t^2 + v_0t + h_0$.)