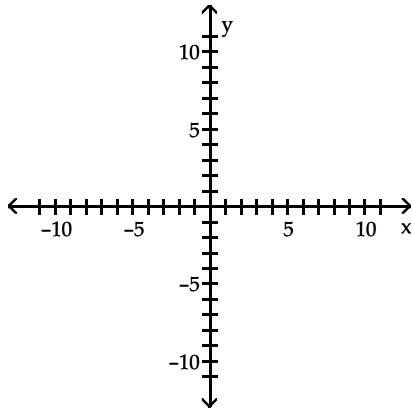


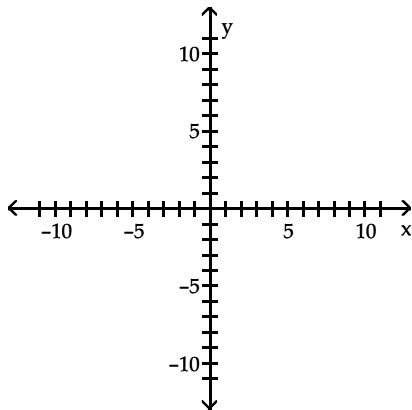
Name _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

- 1) For the linear function $f(x) = -5x + 5$, find: (a) the slope and (b) the vertical axis intercept. 1)
(c) Sketch the graph of f .



- 2) For the linear function $f(x) = 2x + 1$, find: (a) the slope and (b) the vertical axis intercept. (c) 2)
Sketch the graph of f .



- 3) Suppose f is a linear function such that $f(-2) = 5$ and $f(5) = 2$. Find $f(x)$. 3) _____
- 4) Suppose f is a linear function such that $f(0) = 6$ and $f(3) = 4$. Find $f(x)$. 4) _____
- 5) Suppose f is a linear function with slope 5 and such that $f(1) = 4$. Find $f(x)$. 5) _____
- 6) Suppose the variables q and p are linearly related such that $p = 3$ when $q = 20$, and $p = 5$ when $q = 15$. Find p when $q = 12$. 6) _____
- 7) Suppose that a manufacturer will place 1000 units of a product on the market when the price is \$10 per unit, and 1400 units when the price is \$12 per unit. Find the supply equation for the product assuming the price p and quantity q are linearly related. 7) _____
- 8) Suppose the cost to produce 100 units of a product is \$5000, and the cost to produce 125 units is \$6000. If cost c is linearly related to output q , find an equation relating c and q . 8) _____

- 9) Determine the linear function $f(t)$ with slope = -1 and $f(2) = 1$. 9) _____
- 10) Determine a linear function $f(x)$, given $f(2) = 0.5$; $f(1) = -1$. 10) _____
- 11) Tickets to an opera at the Masonic Auditorium cost \$14 for main floor seats and \$10 for the balcony seats. If \$8600 must be collected to meet expenses, what is an equation for the possible combinations of ticket sales to cover costs? 11) _____
- 12) The demand per week for a new automobile is 400 units when the price is \$16,700 each, and 500 units when the price is \$14,900 each. Find the demand equation for the cars, assuming that it is linear. 12) _____