

INTERPRETING SLOPE AND VERTICAL INTERCEPT

For # 1 – 7, interpret the slope and y-intercept of the function in each of the following scenarios.

1. Richard's Yoga Center has done some research and found that the Center's revenue, R , can be written as a function of the number, n , of floor mats sold. Let $R(n) = 11n$.
2. Richard's Restaurant has determined that their profit, P , can be written as a function of the number of meals sold, n . Let $P(n) = 3n - 21$.
3. Tom's Fish Store has determined that their total cost, C , of producing fish hooks is a function of the number, n , of fish hooks made. Let $C(n) = 2n + 24$.
4. The revenue, R , in hundreds of dollars of Tom's Pool Company is a function of the number, n , of in-ground pools sold. Let $R(n) = 12n$.
5. Laurie's Yoga Center has done some research and found that the Center's profit, P , can be written as a function of the number, n , of floor mats sold. Let $P(n) = n + 29$.
6. Mary's Tire Company has determined that their total cost of operation, C , is a function of the number, n , of tires made. Let $C(n) = 2n + 9$.
7. Tom's Awning Retailer has determined that the store's profit, P , can be written as a function of the number, n , of awnings sold. Let $P(n) = 100n - 8$.
8. A small appliance manufacturer finds that if he produces x toaster ovens in a month, his production cost is given by the equation $y = 6x + 3000$, where y is measured in dollars.
9. The manager of a weekend flea market knows from past experience that if she charges x dollars for a rental space at the flea market, then the number, y , of spaces she can rent is given by the equation $y = 200 - 4x$.
10. Many scientists believe that the average surface temperature of the world has been rising steadily. The average surface temperature is given by $T = 0.02t + 8.50$ where T is temperature in $^{\circ}\text{C}$ and t is time in years since 1900.