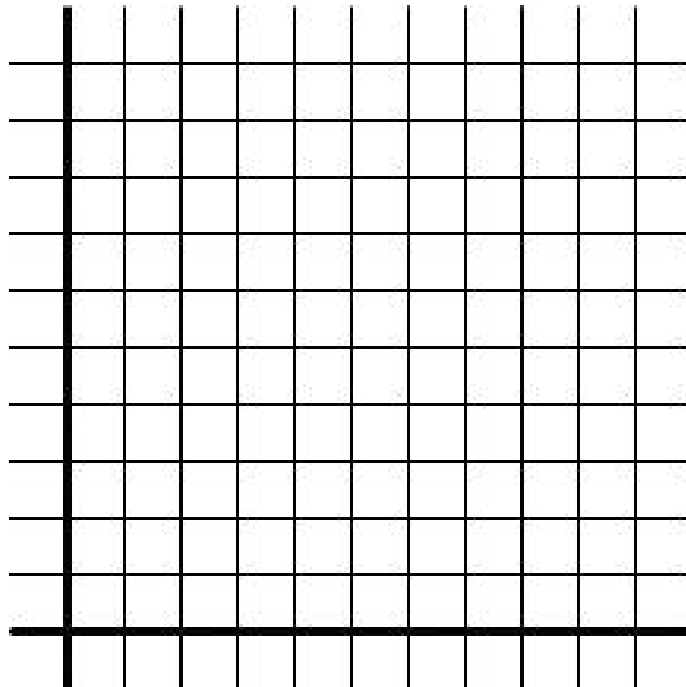


Finite Math  
Linear Function Application  
Cost and Revenue

NAMES:

- You produce exotic candles. You have up-front costs of \$20 (perhaps the rent of your studio or one-time equipment costs) and a cost of \$4 per candle (perhaps the wax and supplies needed for each candle). You sell your candles for \$9 each.
- Let  $x$  represent the number of candles you produce and sell. Determine algebraic equations for  $C(x)$ , the total cost, and  $R(x)$ , the total revenue. Also find the algebraic equation for  $P(x)$ , your company's profit.
- Then graph both  $C(x)$  and  $R(x)$ . Use a straight edge to draw these lines so your graph will be more accurate. Be sure to mark your scale on your axes.



Use the algebraic equations to find  $C(2)$  and  $R(2)$ , or the cost and revenue for producing and selling 2 candles. Verify that the graph gives the same answers. Label these values somehow on your graph. Do you make or lose money if you produce and sell just 2 candles?

Use the algebraic equations to find  $C(5)$  and  $R(5)$ , or the cost and revenue for producing and selling 5 candles. Verify that the graph gives the same answers. Label these values somehow on your graph. Do you make or lose money if you produce and sell just 5 candles?