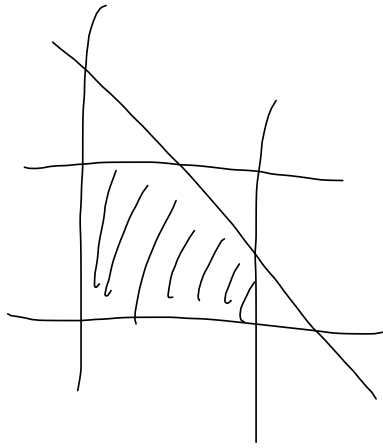
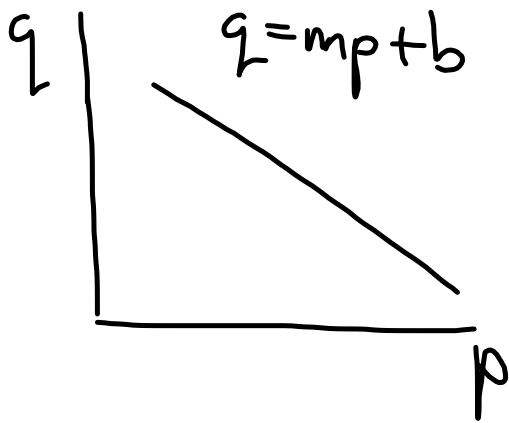


- ① Graph $10x + 15y = 600$ using intercepts.
- ② Make a nice, reasonably large graph of the same equation for just $x \geq 0$ and $y \geq 0$.
- ③ Add the lines $x = 35$ and $y = 30$ on the same graph.

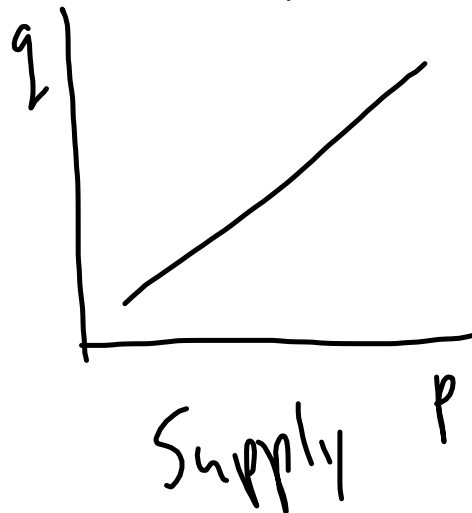


price, supply, demand

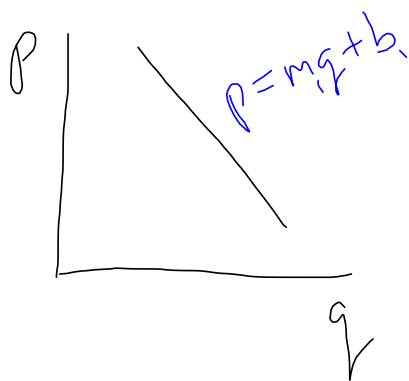


Demand

p is price
q quantity



Supply



Demand

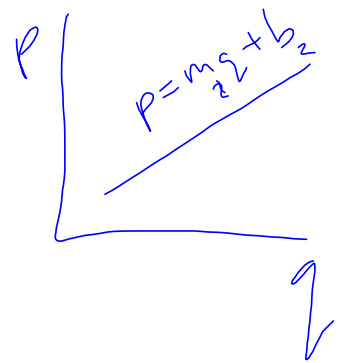
$$q = mp + b$$

$$q - b = mp$$

$$\frac{q - b}{m} = p$$

$$p = \frac{q}{m} - \frac{b}{m}$$

$$p = \frac{1}{m} q - \frac{b}{m}$$



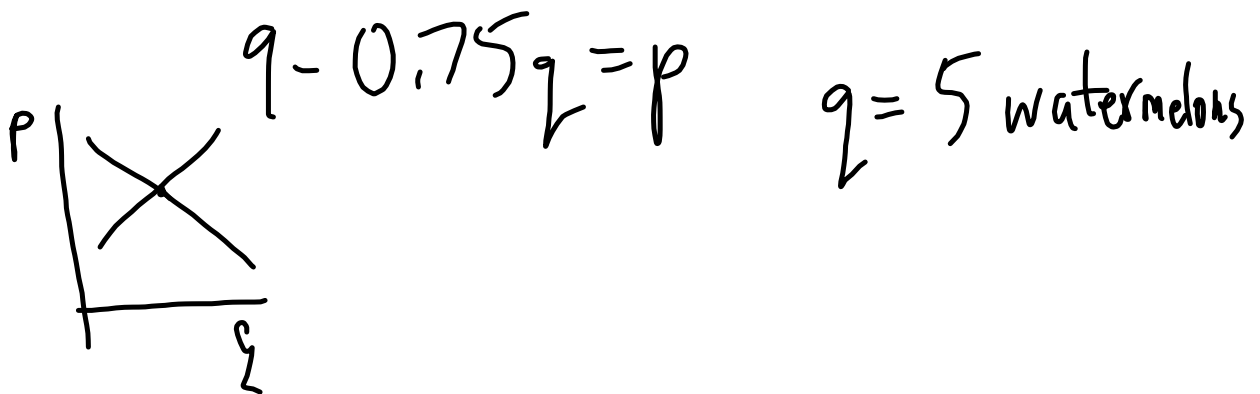
Demand $p = m_1 q + b_1$
 $D(q) = m_1 q + b_1$

$$y = mx + b$$
$$f(x) = mx + b$$

Supply $p = m_2 q + b_2$
 $S(q) = m_2 q + b_2$

$$P = \cancel{D(q)} = 9 - 0.75q \quad (\text{demand})$$

price is \$5.25. Demand?



$$2x + 3y = 5 \rightsquigarrow \begin{matrix} 2x = -3y + 5 \\ x = -\frac{3}{2}y + \frac{5}{2} \end{matrix}$$

Ick!

$$x + 3y = 7 \Rightarrow x = 7 - 3y$$
$$2x + 5y = -1$$

$$p = 9 - 0.75q$$

Demand

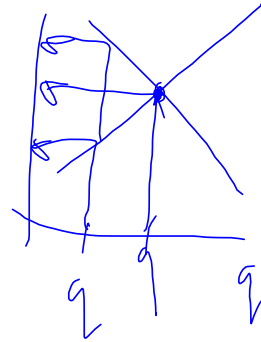
$$p = 0.75q$$

Supply

$$q = 6 \text{ watermelons}$$

equilibrium quantity

$$p = \$4.50 \text{ equilibrium price}$$



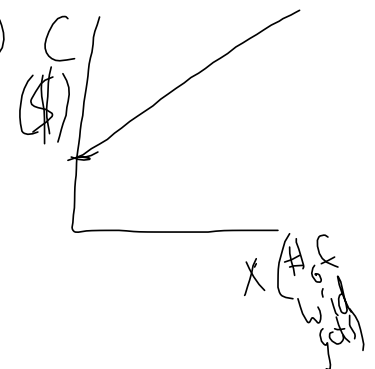
$$C = 2.37x + 8000$$

C is cost, in dollars
 x is number of Widgets

2.37 is marginal cost

Slope, with units: $2.37 \frac{\$}{\text{widget}}$ (\$ per widget)

vert - int with units: \$8000



Turn in Friday

8th Ed
(green) 1.2: 28, 32

9th Ed
(blue) 1.2: 28, 34

$$P = S(q) = 0.75q$$

What is supply at a price of \$5.25?

$$q = 7 \text{ watermelons}$$

$$\frac{5.25}{0.75} = \frac{0.75q}{0.75}$$

Surplus
(vs. Shortage)