I ~ income to be spent on clothes or lattes

Amount of clothes or lattes purchased

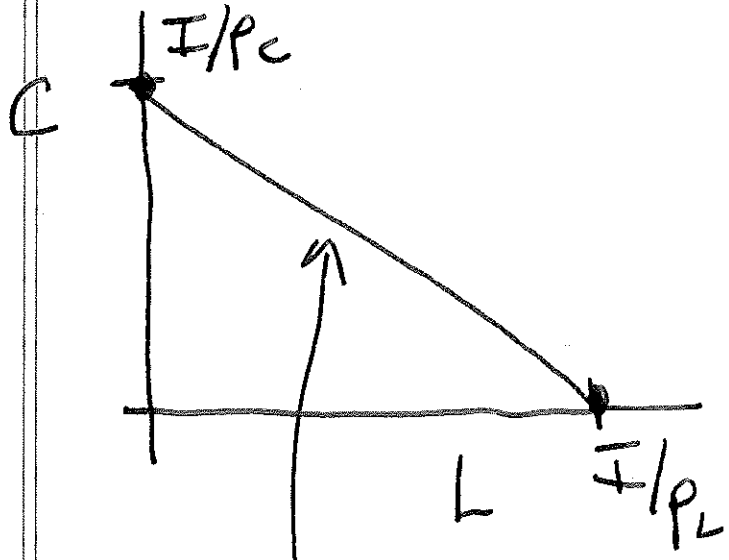
C ~ clothes

L ~ lattes

p_C ~ price of a single item of clothing

p_L ~ price of a single latte

$$I = L \cdot p_L + C \cdot p_C$$



All the combos you can spend your money

$$I - L p_L = C \cdot p_C$$

$$\frac{I}{p_C} - L \frac{p_L}{p_C} = C$$

Straight lines

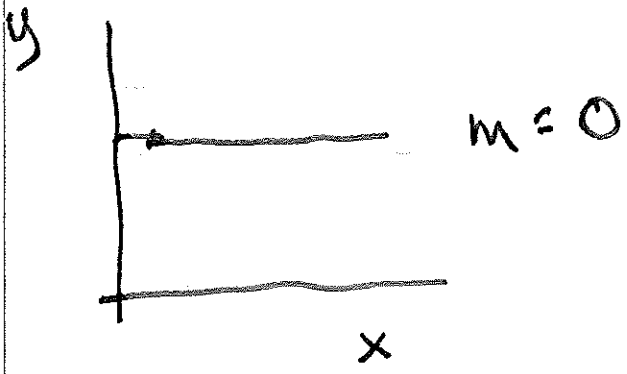
$$y = mx + k$$

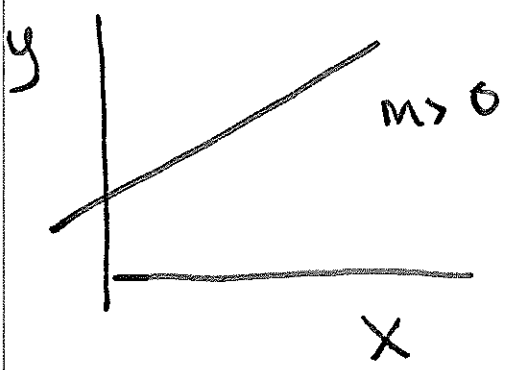
m ~ slope

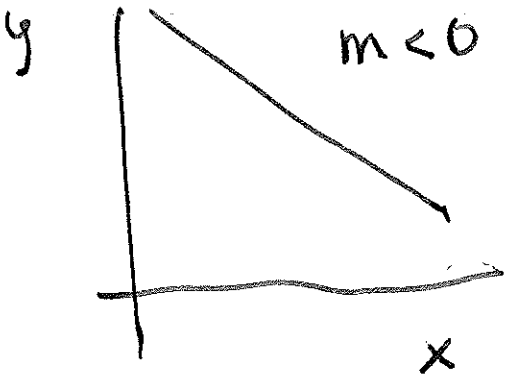
k ~ y intercept

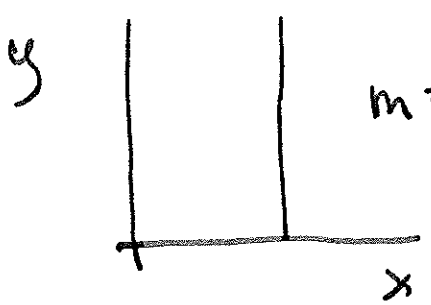
$$\frac{y - y_1}{x - x_1} = m$$

(x_1, y_1) ~ point on the line



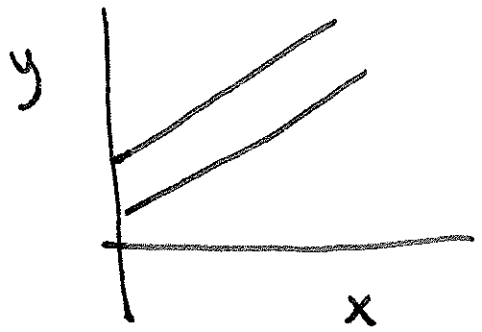




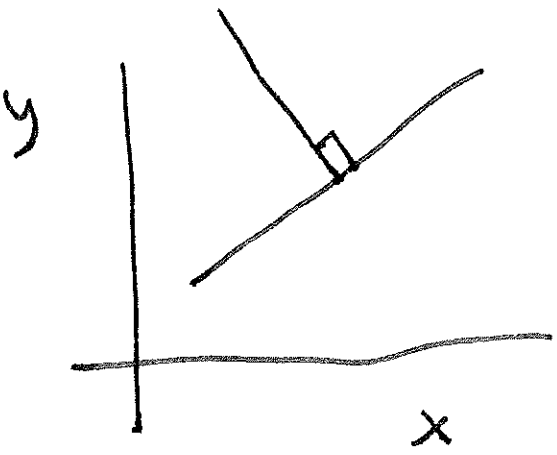


Copy Table 3.1 into your notes

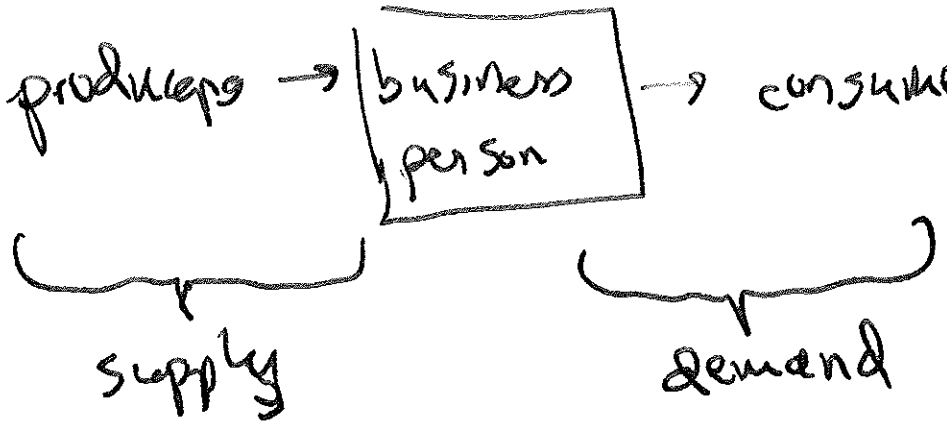
Parallel lines: $m_1 = m_2$



Perpendicular lines $m_1 \cdot m_2 = -1$

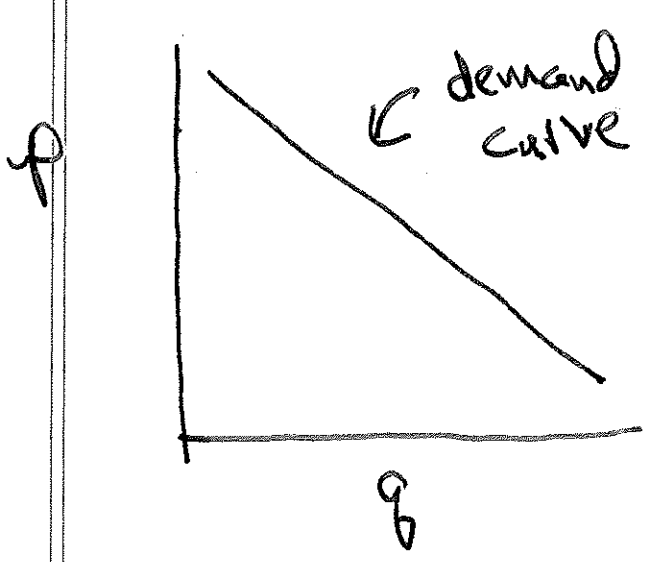


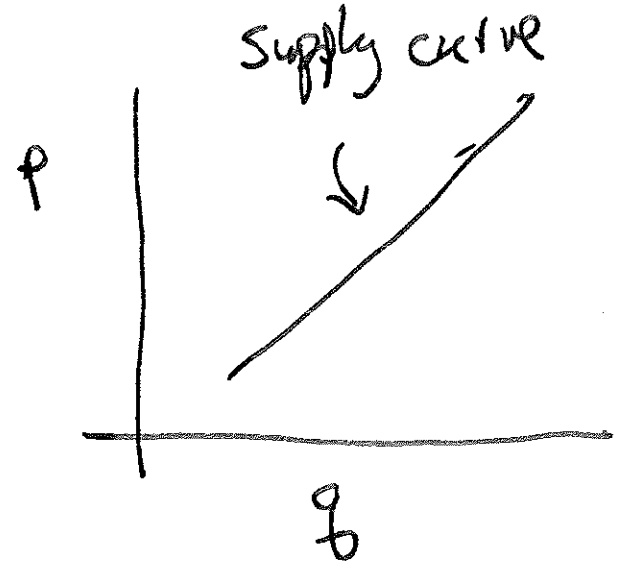
Some more economic ideas



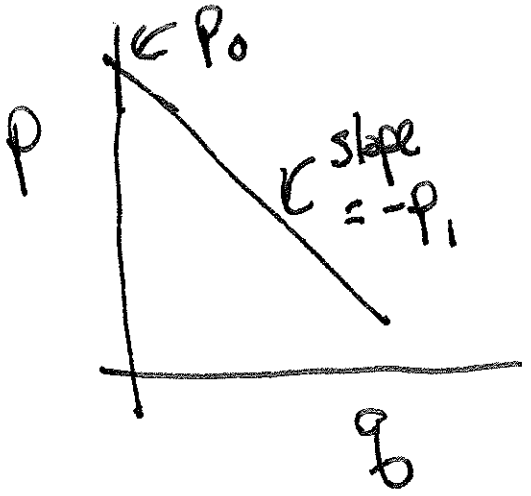
p ~ price/unit

q ~ demand





Revenue = $p \cdot q$



$p(q)$ "price of one"

$= p_0 - p_1 q$

"price subtracts"

$R(q) = (p_0 - p_1 q) q$

$= p_0 q - p_1 q^2$

Quadratic eqn

Read pgs 12-14; 21-22 in the book

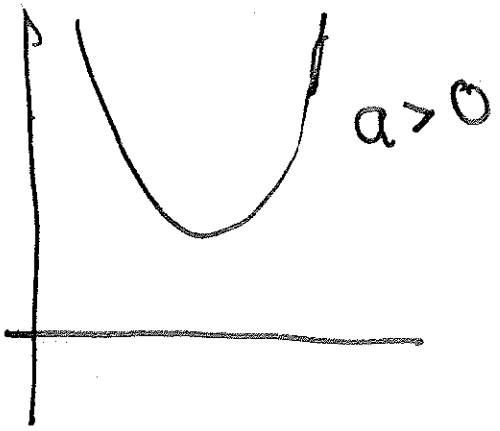
Quadratic functions

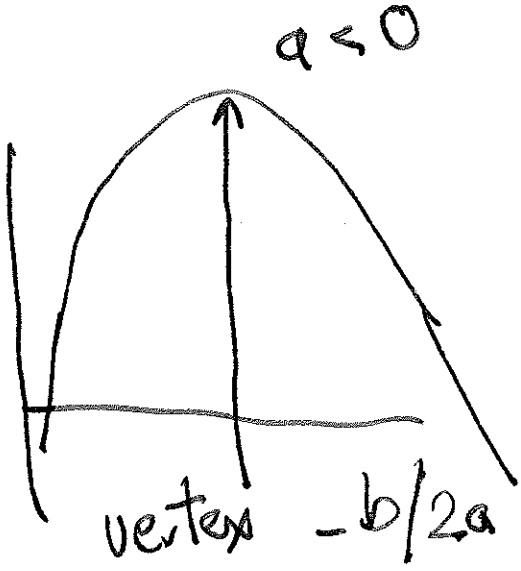
$$y = ax^2 + bx + c$$

$$f(x) = ax^2 + bx + c$$

"Eff of Ex"

"We remember"





A parabola crosses the x-axis when

$$ax^2 + bx + c = 0$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

Quadratic formula ||