1) (a) MP = $60

$Q_1 = 20$ $R_1 = 20(60) = 1200$

$Q_2 = 30$ $R_2 = 30(60) = 1800$

$$MR = \frac{\Delta R}{\Delta Q} = \frac{1800 - 1200}{30 - 20} = \frac{600}{10} = 60$$

(b) $P_1 = 60$ $P_2 = 56$

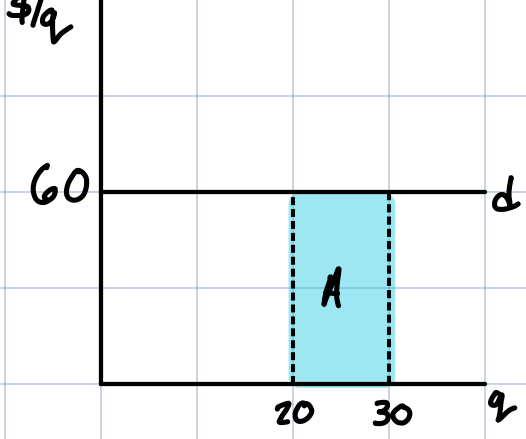
$Q_1 = 20$ $R_1 = 20(60) = 1200$

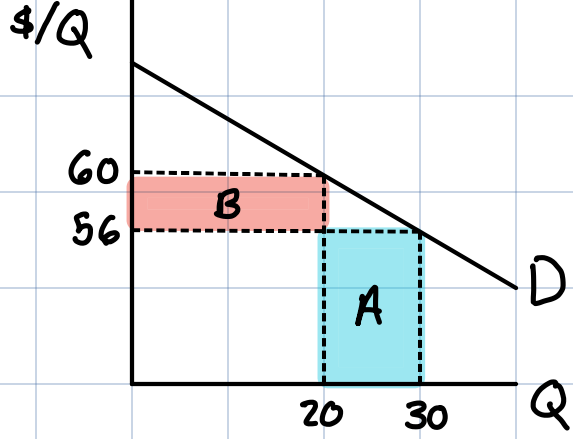
$Q_2 = 30$ $R_2 = 30(56) = 1680$

$$MR = \frac{\Delta R}{\Delta Q} = \frac{1680 - 1200}{30 - 20} = \frac{480}{10} = 48$$

(c) The monopoly has market power but to sell more product they must decrease price to increase demand. Perfect compition are price takers with infinatly elastic demand. When they sell more products, the price doesn't change, they take/gain customers from another buisness in the same market. This makes the marginal revenue higher for perfect compition with the same output increase.

(d) Perfect Comp. Monopoly





$A = 10(60) = 600$

$\Delta R = A = 600$

$A = 10(56) = 560$

$B = 20(4) = 80$

$\Delta R = A - B = 560 - 80 = 480$

2) The price of eggs is subject to price discrimination

(a) First Degree - Perfect Price Discrimination

ex/ difference in price in Minnesota vs. California

and

Second Degree - Volume Discrimination

ex/ buying an entire case of eggs is cheaper per egg then a carton

(b) Company has market power - supermarkets determine price (based on supply price)

Consumer is willing to pay - egg can be a necessity

Prevent resale - eggs spoil and break easily

3)(a) Labor force = Adult Population - Not in Labor Force

$= 160,000 - 30,000$

$= 130,000$

(b) Employed = Labor Force - Unemployed

$= 130,000 - 7,000$

$= 123,000$

(c) Employment Population Ratio $= \frac{\text{Employed}}{\text{Adult Pop.}} \times 100$

$= \frac{123,000}{160,000} \times 100$

$= 76.88\%$

(d) Unemployment Rate $= \frac{\text{Unemployed}}{\text{Labor Force}} \times 100$

$= \frac{7000}{130000} \times 100$

$= 5.38\%$

(e) Unemployment Rate $= \frac{(\text{Unemployed} + \text{MAW})}{(\text{Labor Force} + \text{MAW})}$

$= \frac{(7000 + 900)}{(130000 + 900)} \times 100$

$= 6.04\%$