

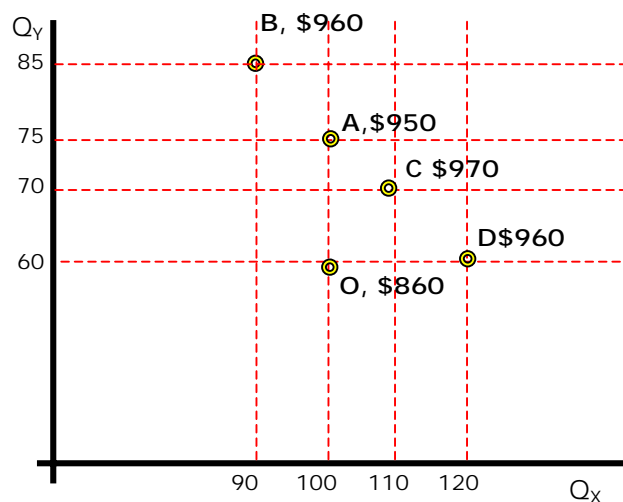
ECON202

Principles of

Microeconomics

Given a set of resources, a state of technology and a set of social institutions (or organizational structure) the current level of output is 100 units of good X (Q_{X0}) and 60 units of good Y (Q_{Y0}). Currently the price of good X (P_X) is \$5 and the price of good Y (P_Y) is \$6. There is no reason to think that these prices will change much during the period of analysis. You can reallocate the resources to alter the output of both Q_X and Q_Y . There are four (4) alternatives that have been identified as feasible:

Alternative	Q_X	Q_Y
A	100	75
B	90	85
C	110	70
D	120	60



- Given the current output of $Q_{X0} = 100$ and $Q_{Y0} = 60$, which alternatives are Pareto Safe? **A, C and D**
- Which alternative has the highest value given the current prices of goods X and Y?
C, $P_{XC}(Q_{XC}) + P_{YC}(Q_{YC}) = \$5(110) + \$6(70) = \$550 + \$420 = \970
- If you move from the current output ($Q_{X0} = 100$ and $Q_{Y0} = 60$) to the alternative with the highest value, what is the marginal benefit (MB)? **\$110,**
 $\Delta Q_X = 10 \text{ units @ } \$5 = \$50$
 $\Delta Q_Y = 10 \text{ units @ } \$6 = \$60$
\$110
- If you move from the current output ($Q_{X0} = 100$ and $Q_{Y0} = 60$) to the alternative with the highest value, what is the marginal cost (MC)? **ZERO, 0, nil**
- If you were producing $Q_{XA} = 100$ and $Q_{YA} = 75$, a reallocation of resources to produce $Q_{XC} = 110$ and $Q_{YC} = 70$ would result in

MB = \$50 and MC = \$30, **Net Benefit = \$20**