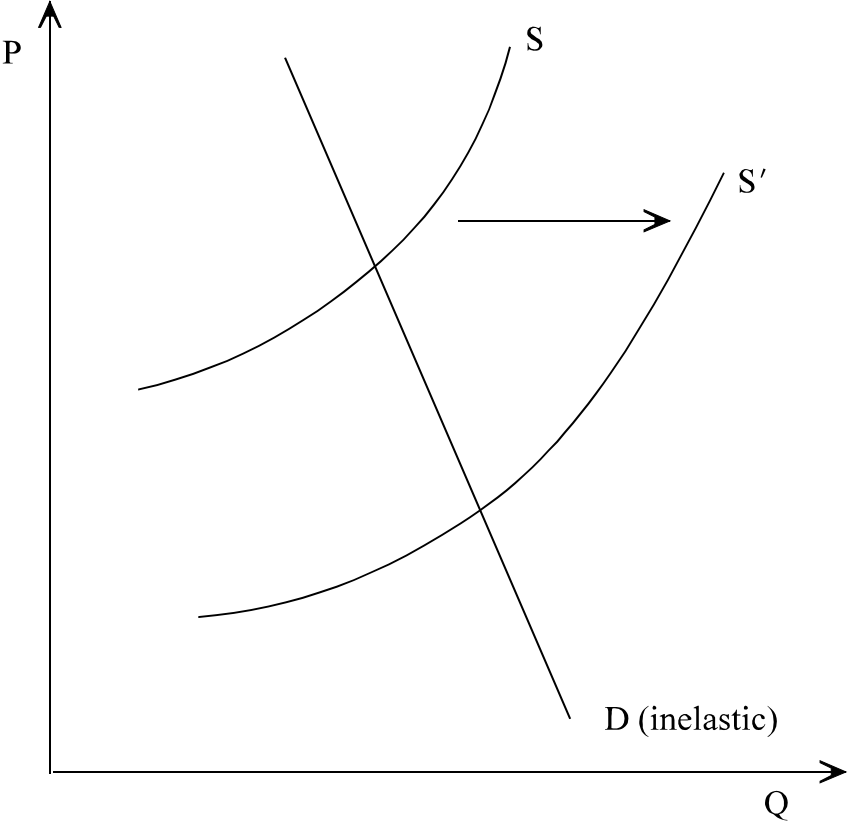


Agricultural Economics 101

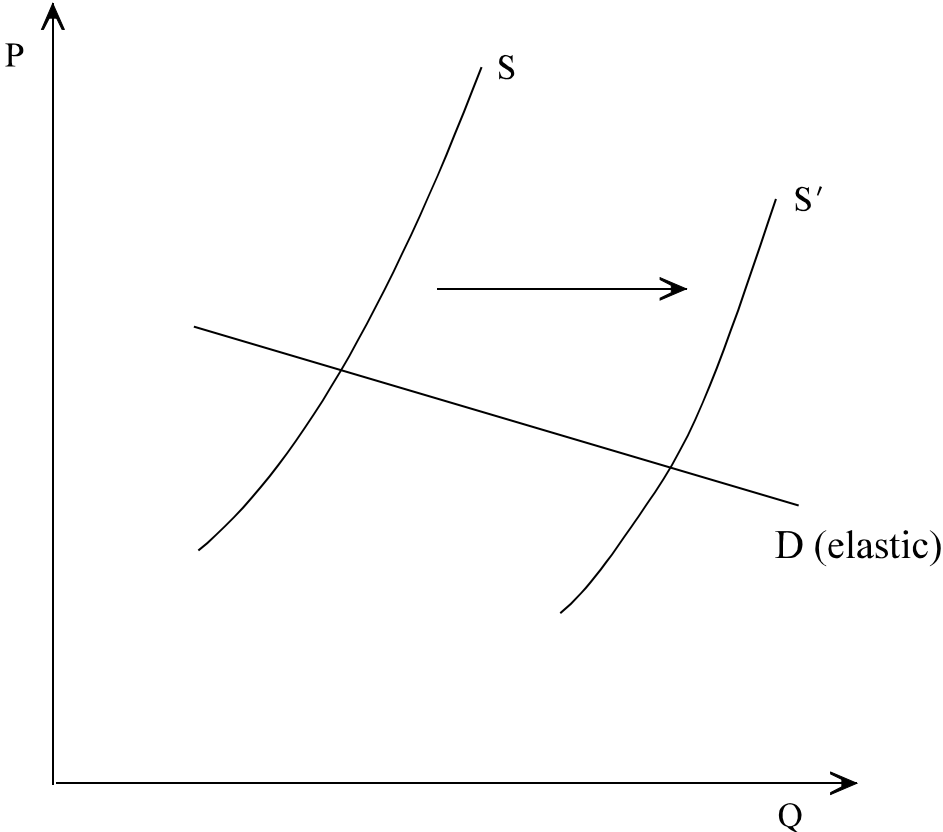
Spring Semester 2001

Handouts are required and should be brought to class each period.

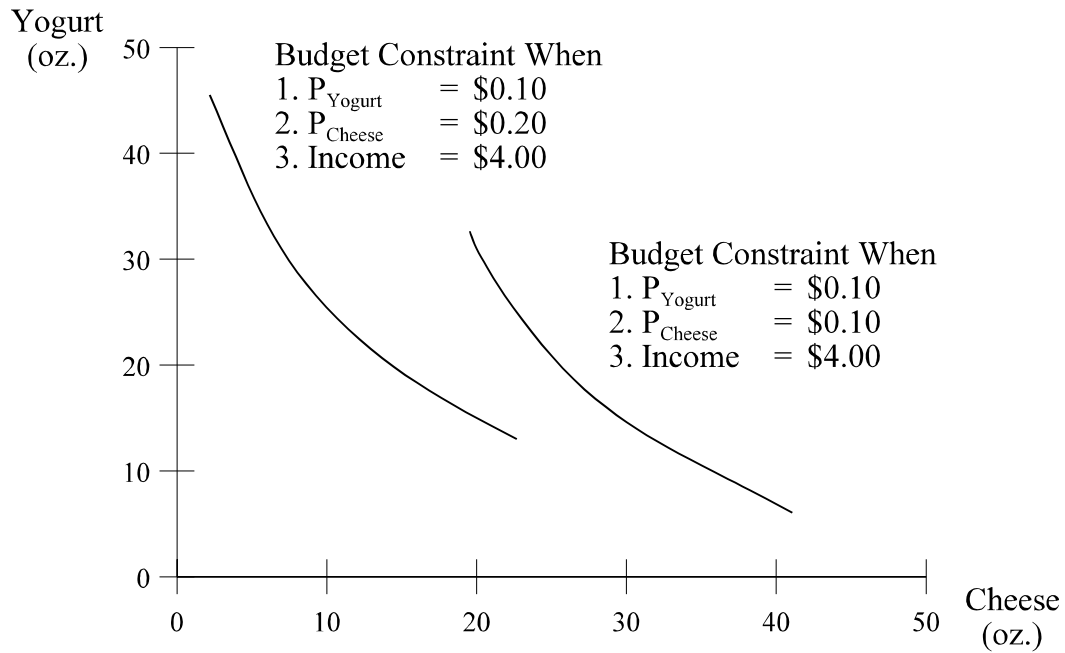
HANDOUT 1: EFFECTS OF AN INCREASE IN SUPPLY, GIVEN INELASTIC DEMAND.



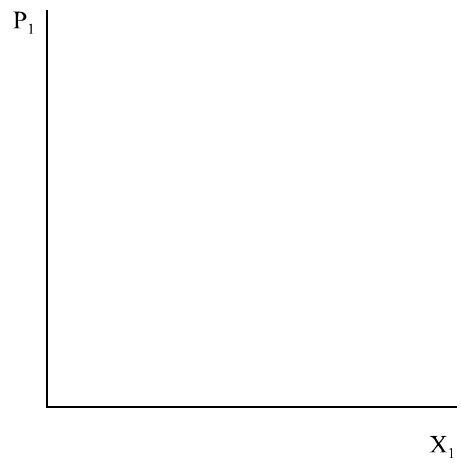
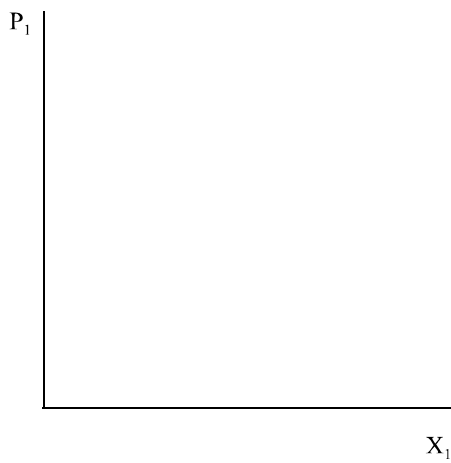
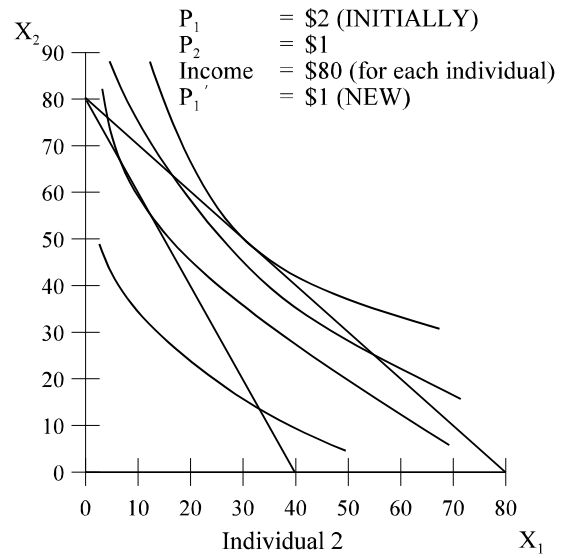
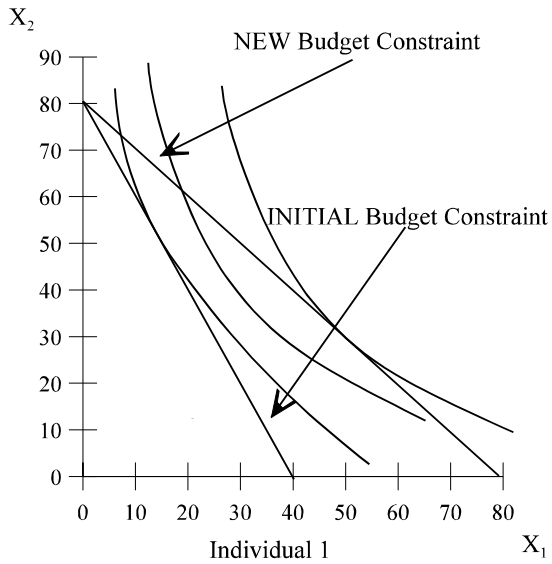
HANDOUT 2: EFFECTS OF AN INCREASE IN SUPPLY, GIVEN ELASTIC DEMAND.



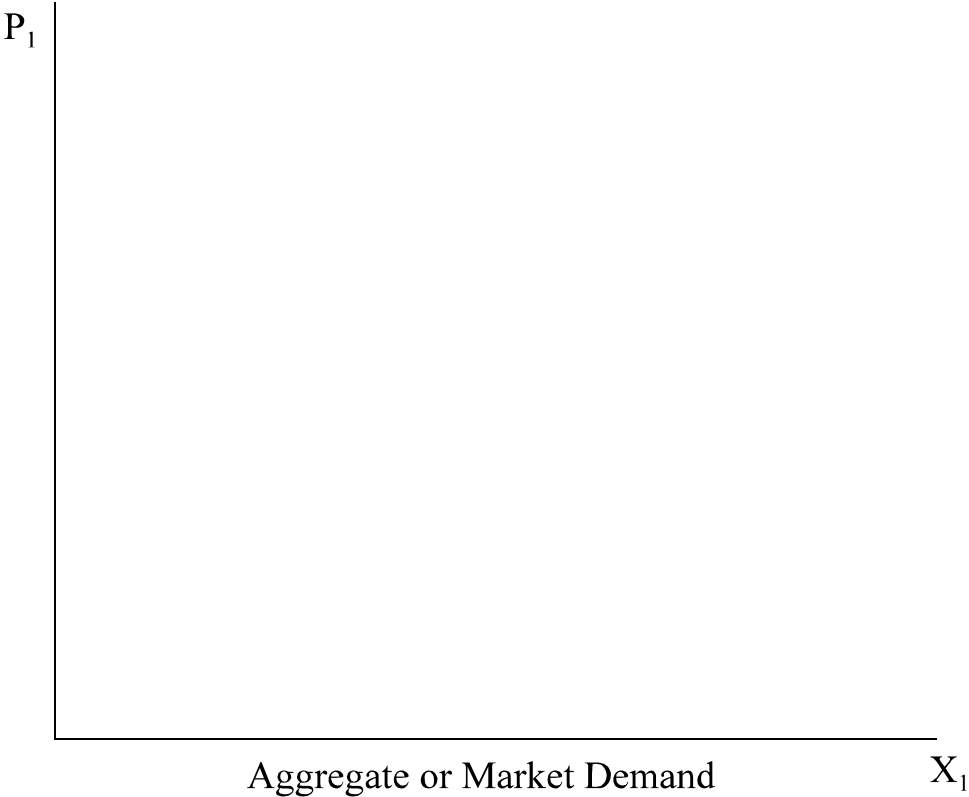
HANDOUT 3: DERIVING THE INDIVIDUAL'S DEMAND FOR CHEESE.



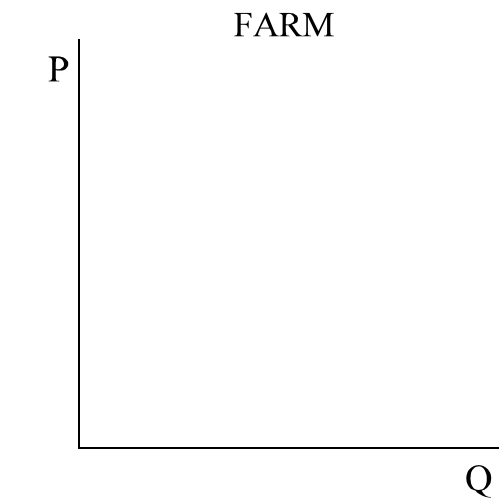
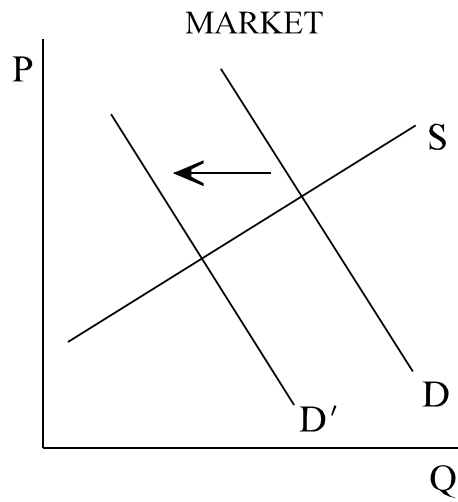
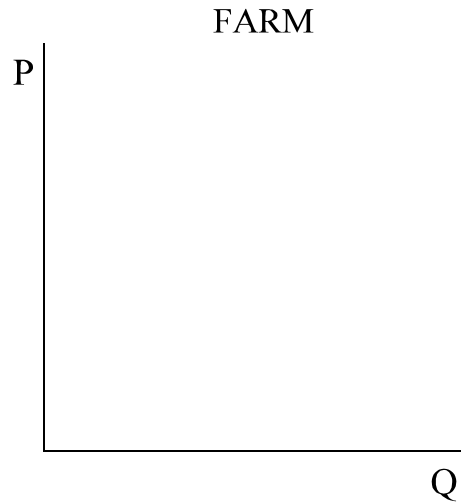
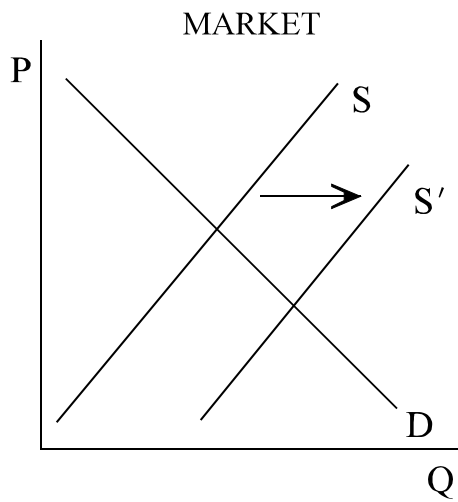
HANDOUT 4: DETERMINING AGGREGATE OR MARKET DEMAND FROM THE INDIVIDUAL'S DEMAND FUNCTIONS.



HANDOUT 4: CONTINUED.



HANDOUT 5: EXAMPLES OF EFFECTS OF CHANGES IN MARKET SUPPLY AND MARKET DEMAND ON FARM-LEVEL DEMAND.



*Analysis assumes that all prices are farm-level prices.

I. Handout 6: Own-Price Elasticities of Demand at the Retail Level for Selected Commodities.

Commodity	E_d	Commodity	E_d
Beef	0.6438	Other Fresh Fruit	0.6000
Veal	1.7177	Dried Fruits	0.6553
Pork	0.4130	Frozen Fruits	1.0000
Lamb and Mutton	2.6255	Lettuce	0.1414
Chicken	0.7773	Tomatoes	0.3846
Turkey	1.5553	Beans	0.2550
Fish	0.2300	Onions	0.2500
Eggs	0.3138	Carrots	0.4971
Butter	0.6524	Other Fresh Vegetables	0.3200
Lard	0.4000	Canned Peas	0.1850
Shortening	1.0158	Canned Corn	0.2550
Margarine	0.8465	Canned Tomatoes	0.1760
Salad Dressing	0.6944	Dry Vegetables	0.4800
Fresh Milk	0.3455	Frozen Vegetables	1.0344
Evaporated Milk	0.3198	Other Canned Fruits/Vegetables	0.4000
Cheese	0.4601	Rice	0.3200
Ice Cream	0.5276	Wheat Flour	0.3000
Potatoes	0.3086	Breakfast Cereals	0.2200
Sweet Potatoes	0.5204	Corn Meal	0.2200
Sugar	0.2419	Bread and Other Cereals	0.1500
Corn Syrup	0.4429	Coffee	0.2522
Apples	0.7200	Soup	0.4500
Bananas	0.6150	Other Beverages	0.4387
Oranges	0.6632	All Food	0.2368
Canned Peaches	0.7592	Nonfood	1.0180
Canned Pineapples	0.8262		

II. Handout 6 Continued: Selected Cross-Price Elasticities of Demand at the Retail Level.

Commodity	E_x
Chicken w.r.t. Turkey	0.4000
Fish w.r.t. Chicken	0.0037
Butter w.r.t. Margarine	0.4245
Apples w.r.t. Bananas	0.2136
Lettuce w.r.t. Apples	0.0001
Canned Peas w.r.t. Canned Corn	0.0590
Coffee w.r.t. Other Beverages	0.0330
Rice w.r.t. Beef	0.0002

III. Handout 6 Continued: Income Elasticities of Demand.

Commodity	N_d	Commodity	N_d
Beef	0.2899	Other Fresh Fruit	0.4473
Veal	0.5911	Dried Fruits	0.3153
Pork	0.1335	Frozen Fruits	0.6614
Lamb and Mutton	0.5712	Lettuce	0.1470
Chicken	0.1785	Tomatoes	0.1703
Turkey	0.7684	Beans	0.0000
Fish	0.0040	Onions	0.0047
Eggs	0.0549	Carrots	0.3194
Butter	0.3181	Other Fresh Vegetables	0.1500
Lard	-0.0500	Canned Peas	0.0321
Shortening	0.0291	Canned Corn	0.0236
Margarine	0.0000	Canned Tomatoes	0.1734
Salad Dressing	0.2849	Dry Vegetables	0.2169
Fresh Milk	0.2036	Frozen Vegetables	0.6161
Evaporated Milk	0.0000	Other Canned Fruits and Vegetables	0.2000
Cheese	0.2489	Rice	0.0555
Ice Cream	0.3313	Wheat Flour	0.0831
Potatoes	0.1166	Breakfast Cereals	0.0577
Sweet Potatoes	0.0000	Corn Meal	0.0578
Sugar	0.0321	Bread and Other Cereals	0.0000
Corn Syrup	0.1737	Coffee	0.0472
Apples	0.1399	Soup	0.2364
Bananas	0.1393	Other Beverages	0.2300
Oranges	0.2605	All Food	0.1763
Canned Peaches	0.4000	Nonfood	1.2432
Canned Pineapples	0.3407		

HANDOUT 7: DERIVATION OF APP, MPP, FROM TPP.

(1) TPP = Total Physical Product = Y

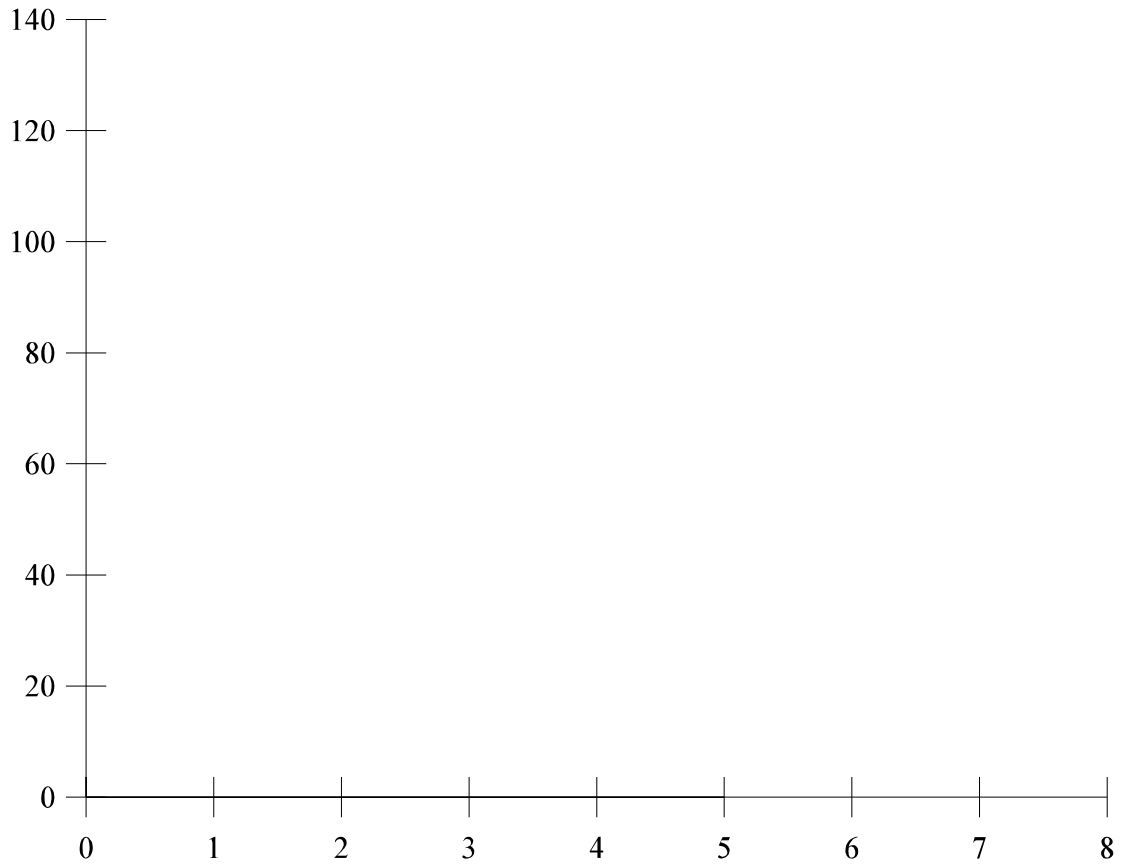
(2) APP = Average Physical Product = $\frac{Y}{X_1}$

(3) MPP = Marginal Physical Product = $\frac{\Delta Y}{\Delta X_1}$

$X_1 = \text{INPUT}$	$Y = \text{OUTPUT}$ (TPP)	Y/X_1 (APP)	$\Delta Y/\Delta X_1$ (MPP)
0	0		
1	44.9		
2	83.6		
3	110.1		
4	127.3		
5	136.9		
6	139.9		
7	137.1		
8	129.1		

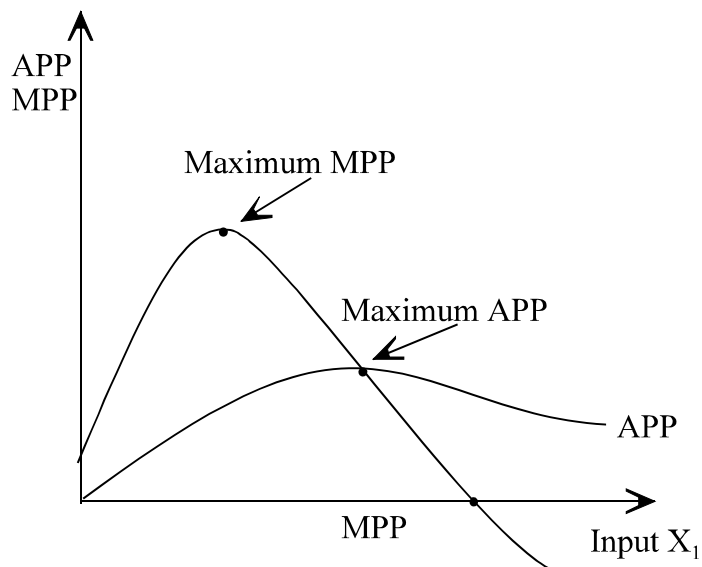
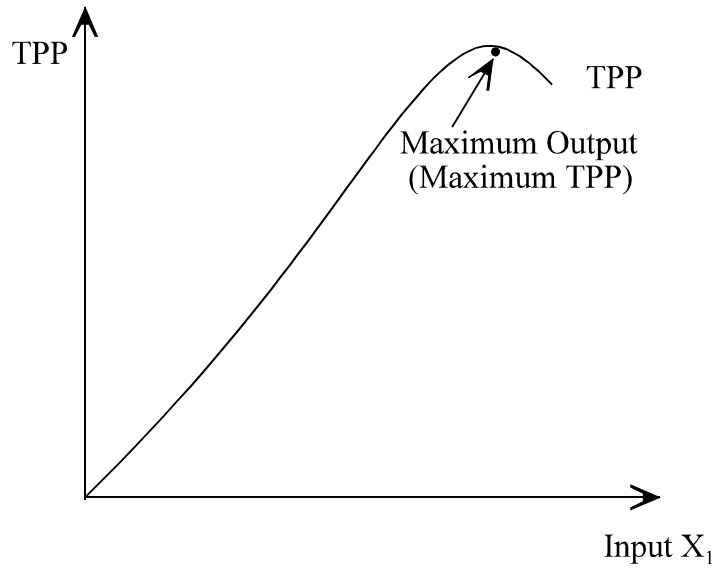
HANDOUT 7: CONTINUED

Y = Bu. Corn/A

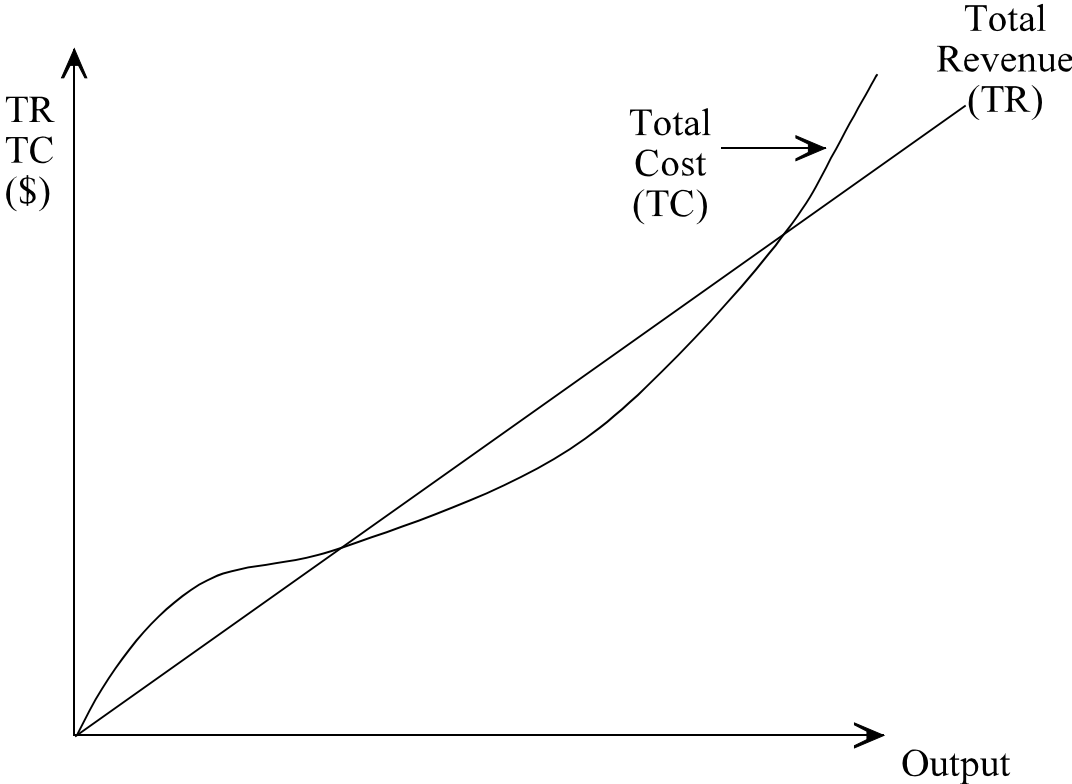


$X_1 = \text{Units Fertilizer}$

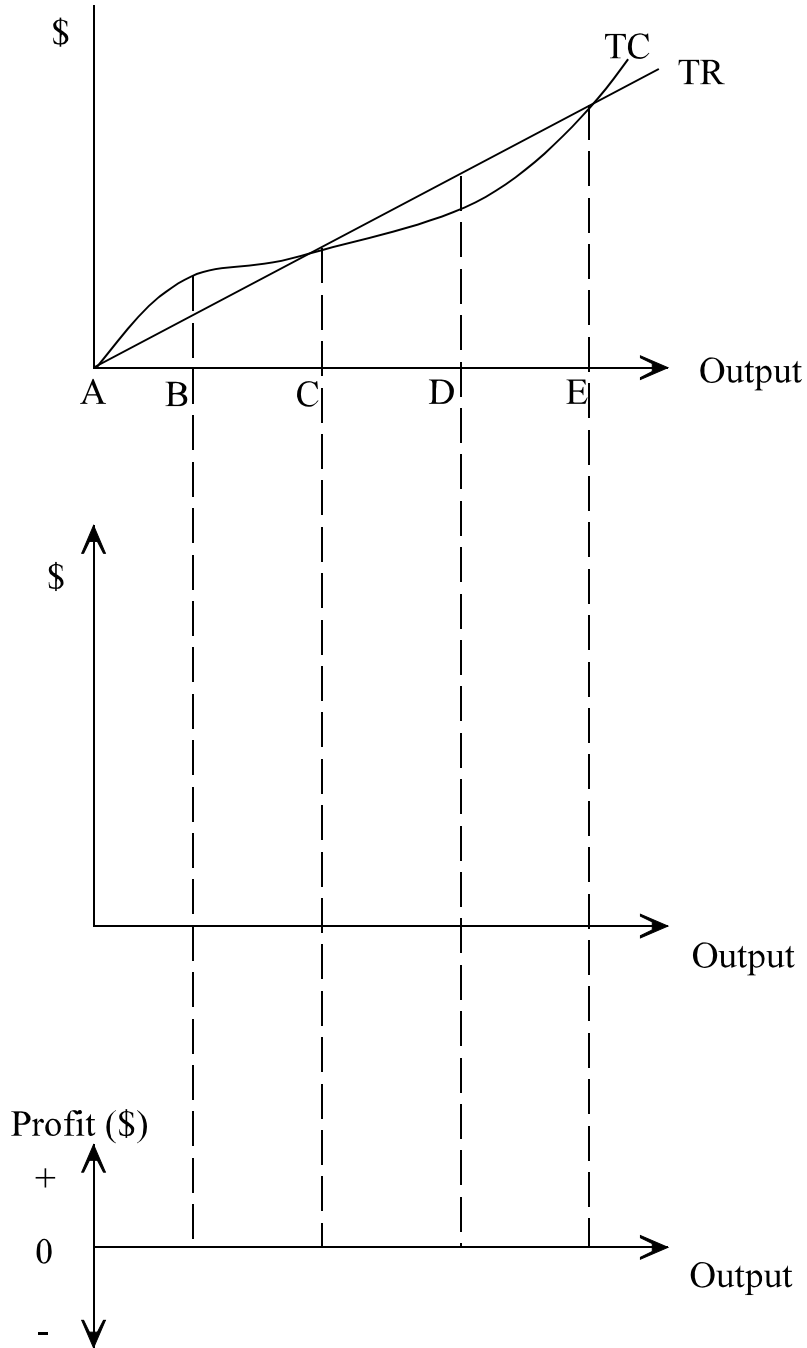
HANDOUT 8: RELATIONSHIPS BETWEEN TPP, APP, AND MPP.



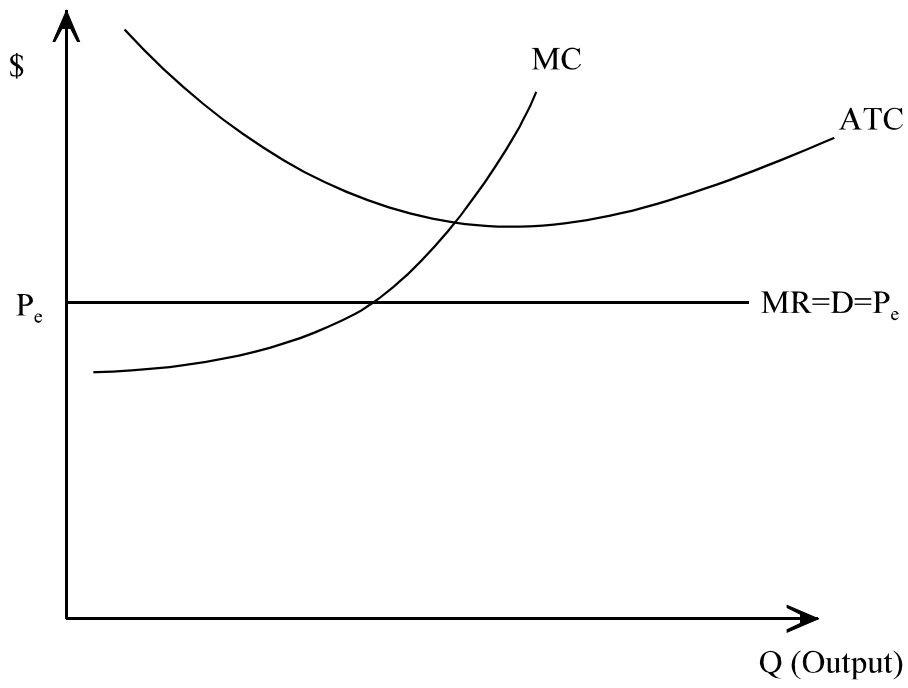
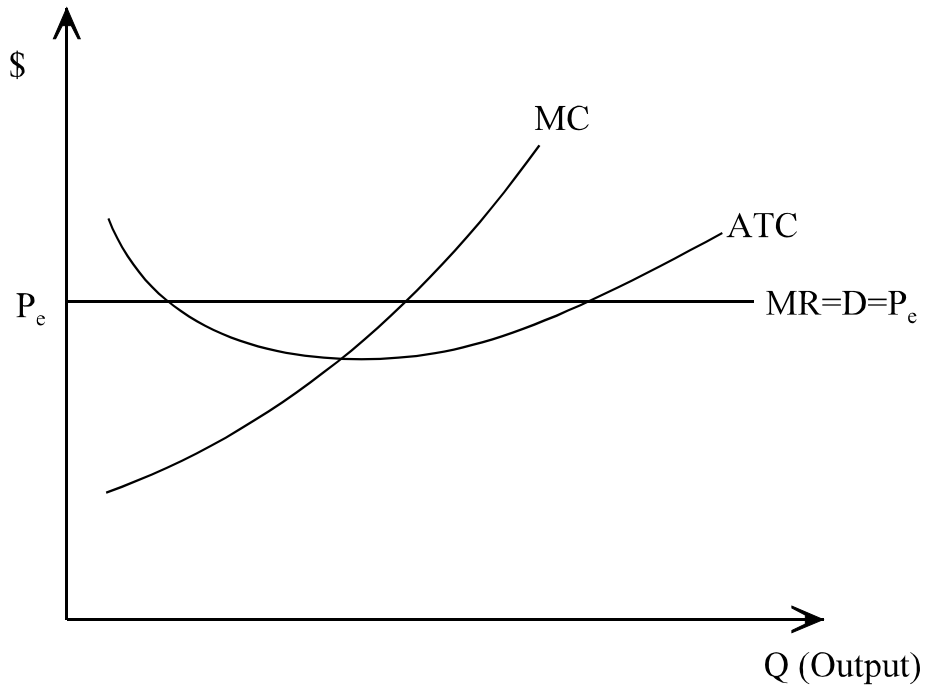
HANDOUT 9: TOTAL COST, TOTAL REVENUE, AND PROFIT.



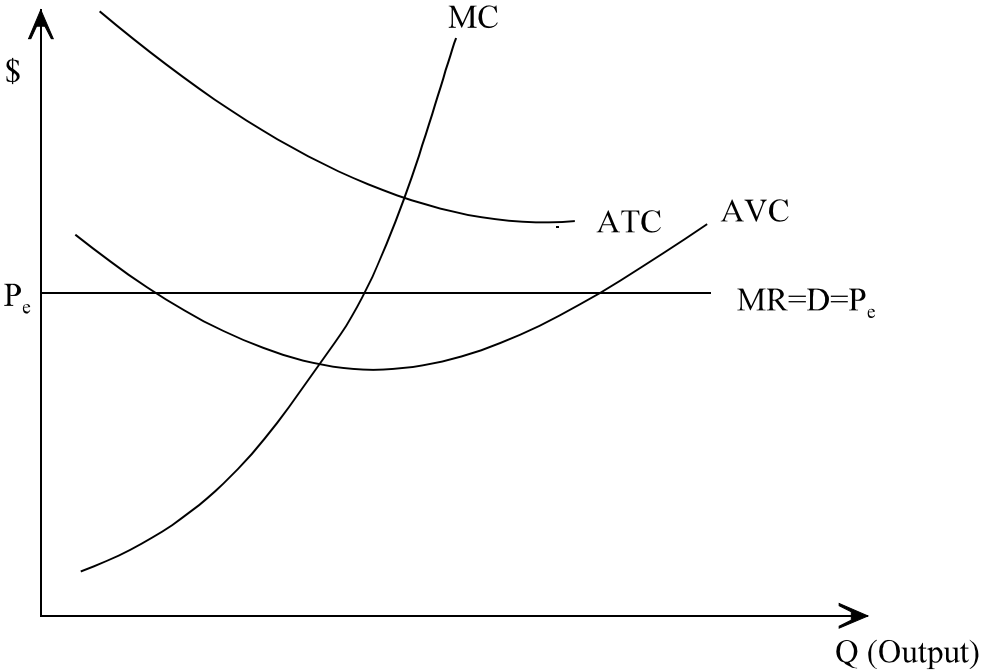
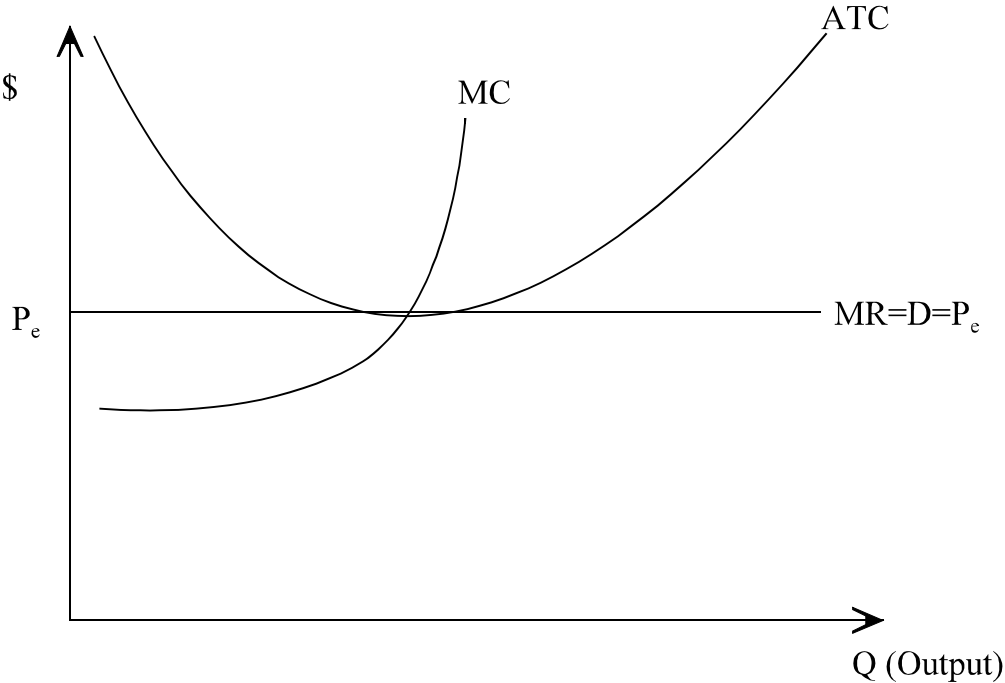
HANDOUT 10: TOTAL COST, TOTAL REVENUE, MARGINAL COST, MARGINAL REVENUE, AND PROFIT.



HANDOUT 11: SHORT RUN, FIRM-LEVEL ANALYSIS.



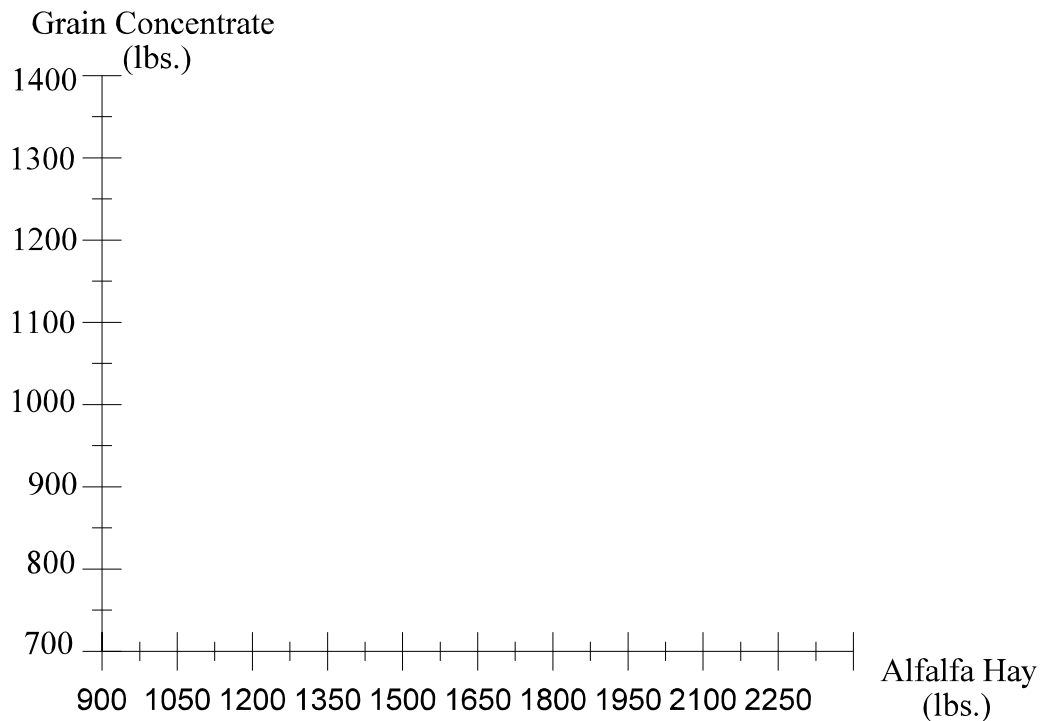
HANDOUT 11: CONTINUED



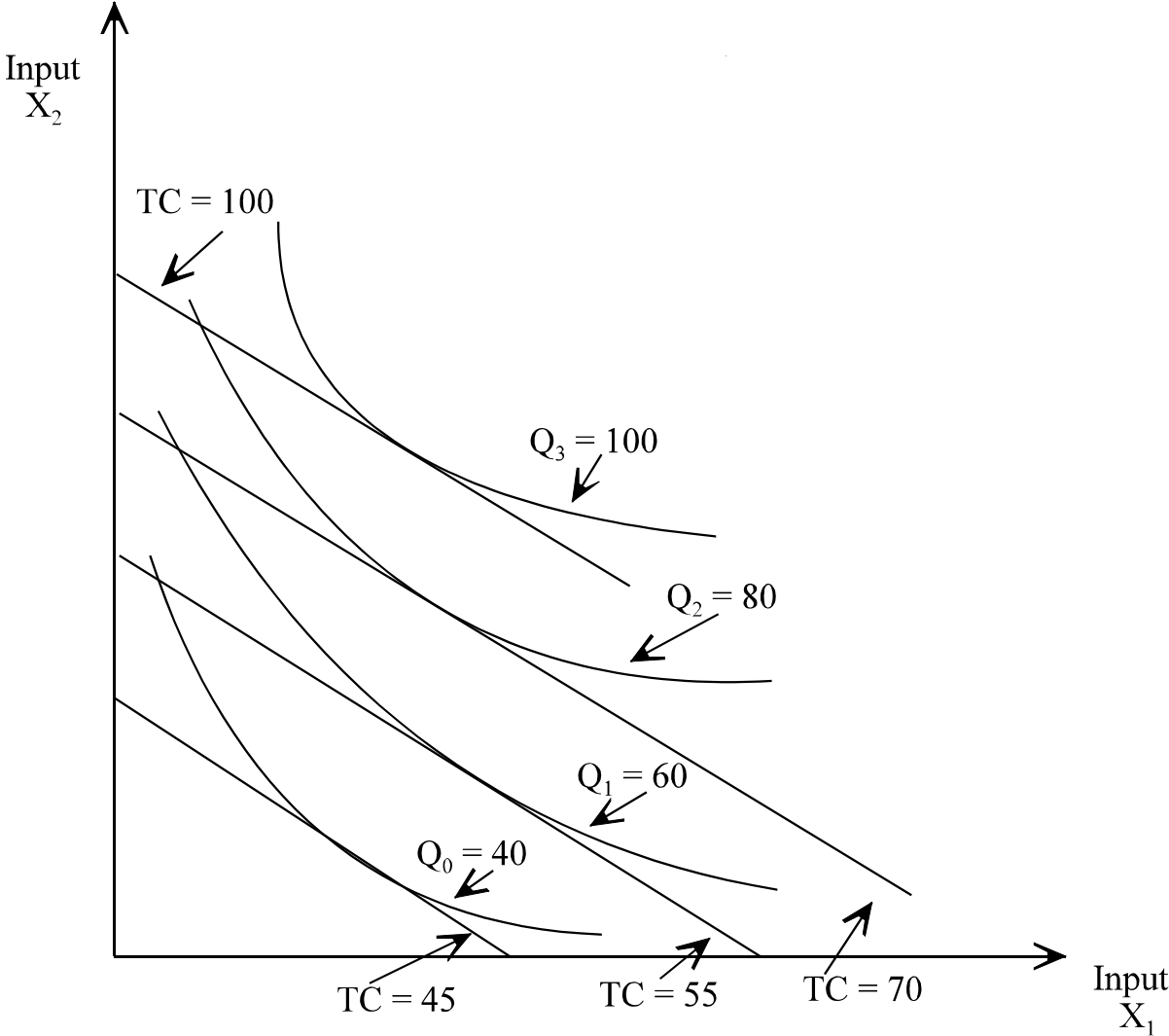
HANDOUT 12: EXAMPLES OF AN ISOQUANT: GRAIN CONCENTRATE AND ALFALFA HAY COMBINATIONS NECESSARY TO PRODUCE A 300-LB. GAIN ON BEEF CALVES.

Alfalfa (in lbs.)	Grain Concentrate (in lbs.)
1,000	1,315
1,100	1,259
1,200	1,208
1,300	1,162
1,400	1,120
1,500	1,081
1,600	1,046
1,700	1,013
1,800	984
1,900	957
2,000	932

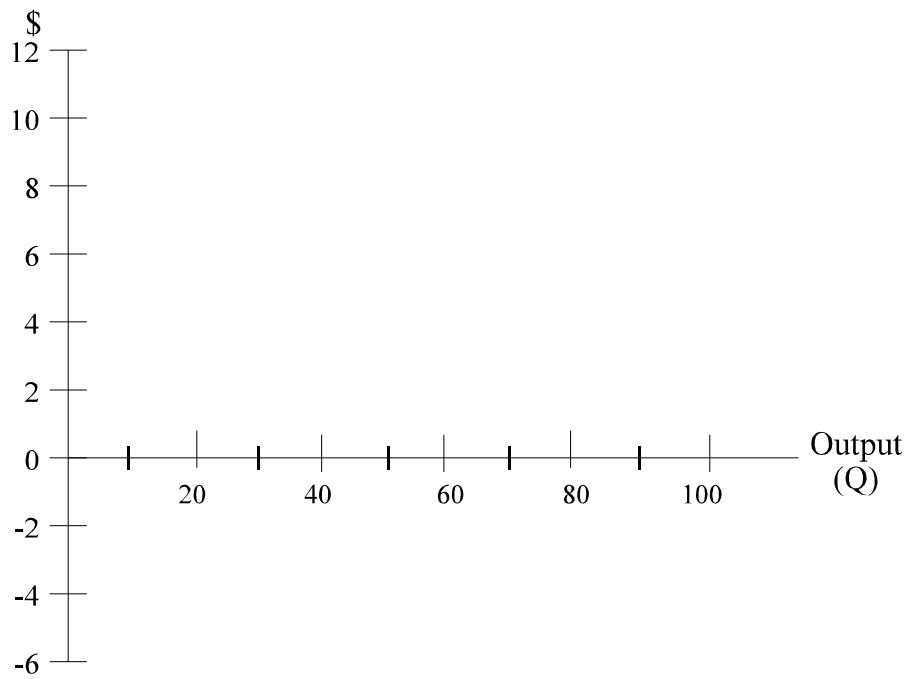
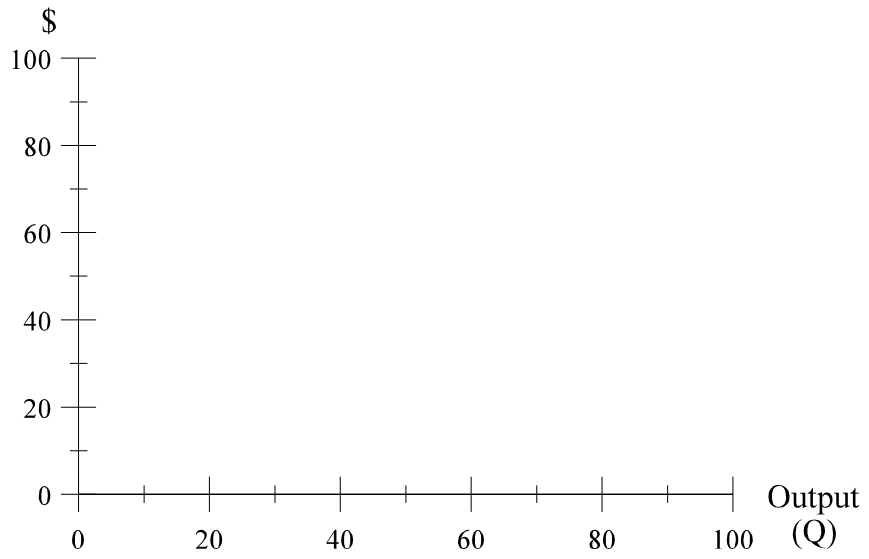
Source: Castle, E. M., M. Becker and F. Smith. *Farm Business Management: The Decision-Making Process* (2nd Edition, p. 33). Data drawn from Oregon State University Agricultural Experiment Station Miscellaneous Paper 98.



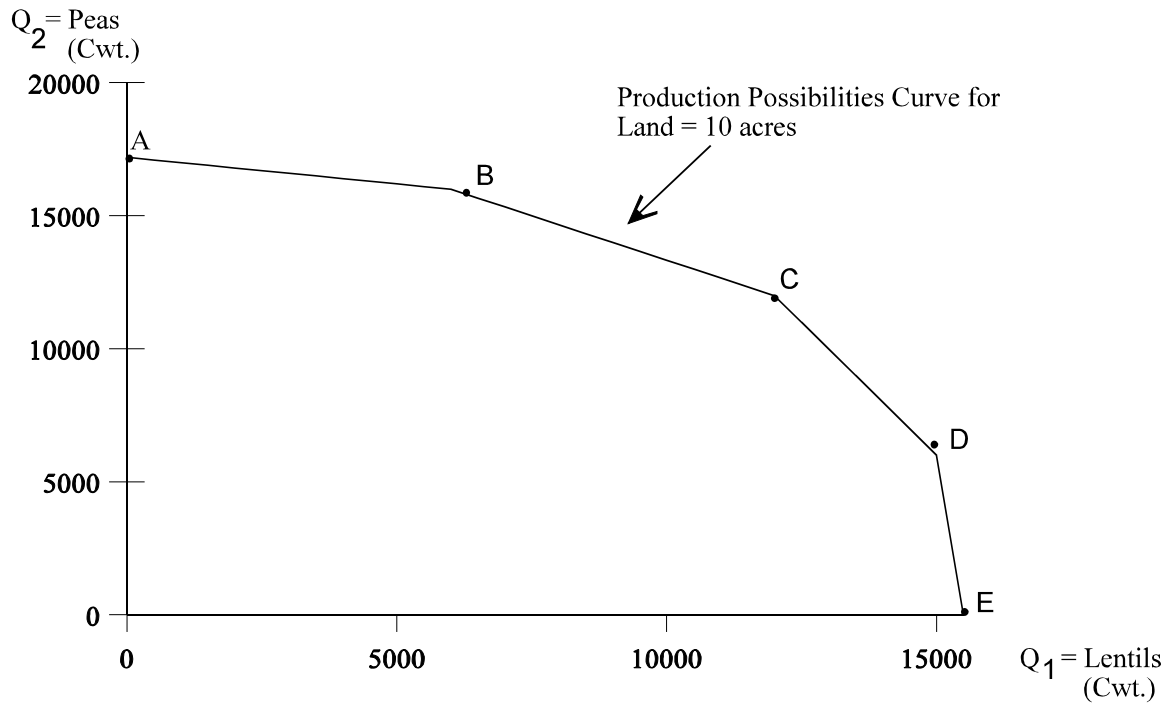
HANDOUT 13: DETERMINING THE LEAST-COST COMBINATIONS AND THE PROFIT-MAXIMIZING LEVEL(S) OF OUTPUT.



HANDOUT 13: CONTINUED.

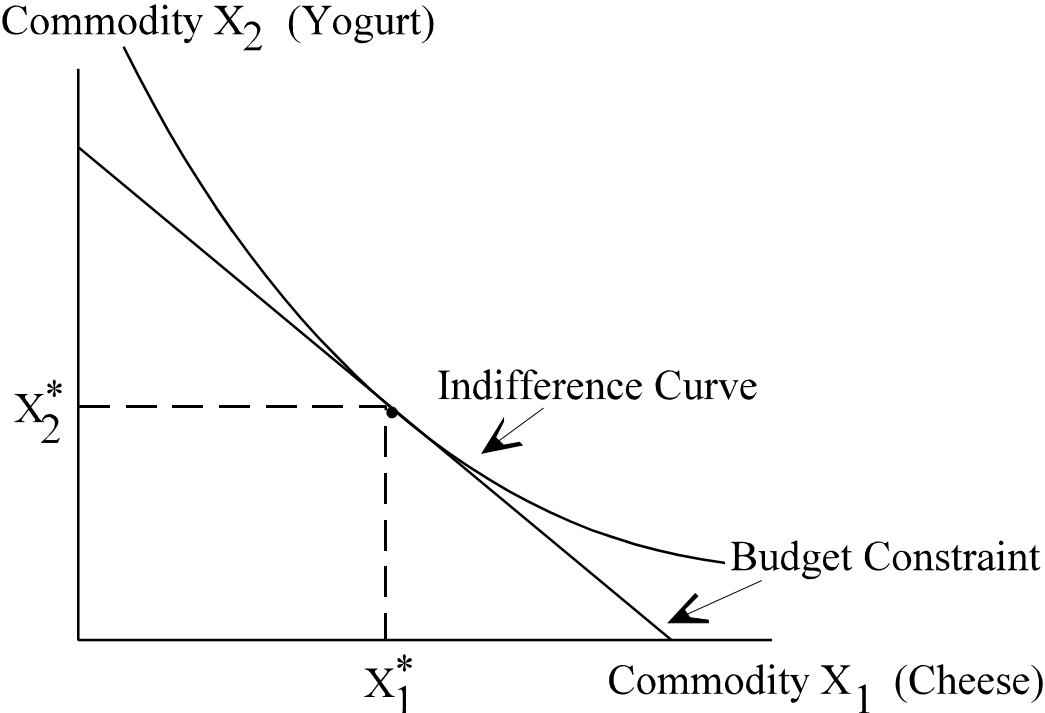


HANDOUT 14: PRODUCTION POSSIBILITIES CURVE.



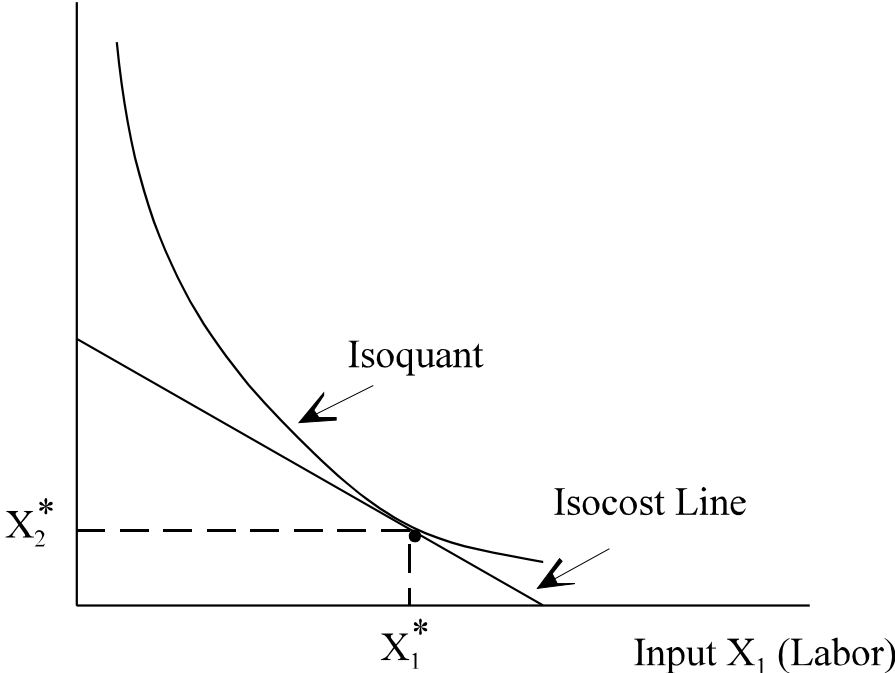
- A. Peas = 17,200 Cwt.
Lentils = 0 Cwt.
- B. Peas = 16,000 Cwt.
Lentils = 6,000 Cwt.
- C. Peas = 12,000 Cwt.
Lentils = 12,000 Cwt.
- D. Peas = 6,000 Cwt.
Lentils = 15,000 Cwt.
- E. Peas = 0 Cwt.
Lentils = 15,500 Cwt.

HANDOUT 15: COMPARATIVE GRAPHS.



HANDOUT 15: CONTINUED.

Input X_2 (Fertilizer)



HANDOUT 15: CONTINUED.

