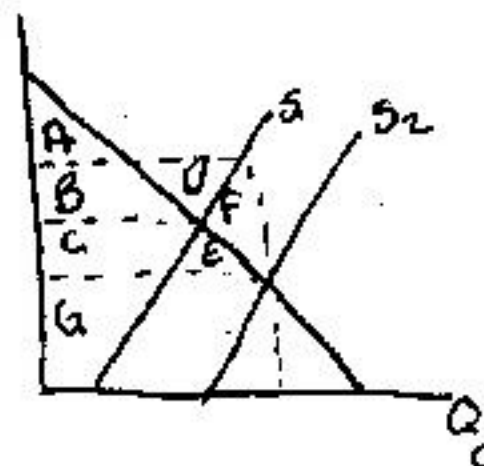


ker 9



Subsidy shifts supply fr
 S_1 to S_2 . Consumer surplus
 changes from $A+B$ to A
 Producer surplus changes fra
 $C+G$ to $C+G+B+D$
 Government expenses change
 from A to $B+C+D+E+F$

equilibrium price w/out tax is $p=5$
 and quantity is $Q=50$.

tax: Demand function is $Q=100-10p$
 and supply function remains the same.
 new equilibrium: $p=5.5$ and $Q=45$

consumer surplus decreases by $(50+45) \times 0.5$
 producer surplus decreases by the same
 government tax ~~expense~~ revenue is 45×0.5
 $twl = (23.75 \times 2) - 45 = 2.5$

with price ceiling, equilibrium is $p=3$
 $Q=30$

consumer surplus increases by $2 \cdot 30 - 2 \cdot \frac{50-30}{2}$

39) equilibrium p and q are:

$$p^* = 6.44$$

$$Q^* = 6743$$

Consumer Surplus $\int_{6.44}^{\infty} 50,000 p^{-1.026} dp = 971,059.14$

Producer Surplus $\int_0^{6.44} 0.01 p^{1.208} dp = 9301.048$

Chapter 10

12) Yes, they may want to trade. If two individuals consume different bundles and have identical preferences, their MRS may be unequal and may gain by trading.

ex: $U = XY$

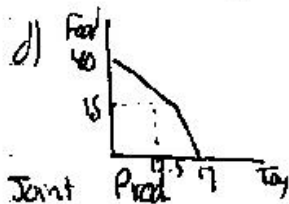
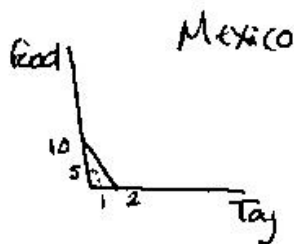
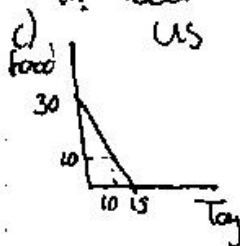
Person 1 has 4x, 2y

Person 2 has 2x, 4y

by trading 1x for 1y, both can get a utility of 9.

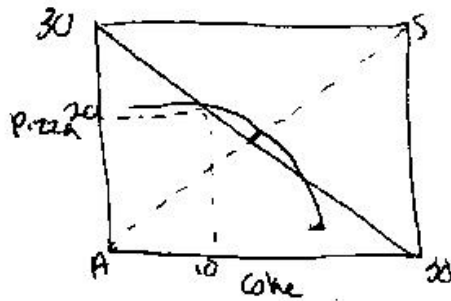
19) a) In absence of trade, the US can produce 30 food and 15 toys. Mexico can produce 10 food and 2 toys

b) US has comparative advantages in toys and Mexico in food



e) If US produces 5 food and 12.5 units of toys and Mexico produces 10 food, the total goods is greater than when there is no trade.

- 20) a) MRS is -1 for each person
 b) Contract curve is on 45° line



Extra Credit

24) See equation 10.13

Note that $MRS_i = -\frac{H_i}{G_i}$, $MRS_m = -\frac{H_m}{2G_m}$, $G_i + G_m = 100$

and $H_i + H_m = 50$

equate MRSs and use info about endowments

we get: $100G_m + 100H_m - H_m G_m = 0$

Part 2

1) Invisible hand works:

- interconnected markets, competitive markets, general industries

fails:

- specific products, monopolies, oligopolies, isolated markets

2) General Eq:

- good for qualitative understanding, analyzing large, interconnected markets

- bad for quantitative analysis, single-market analysis, etc.

Partial Eq:

- opposite of general