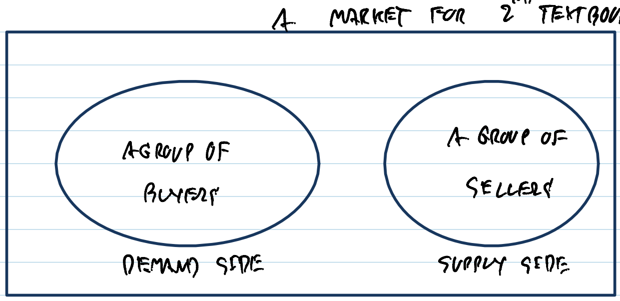
EE211_Wk7_Sec1

Thursday, September 19, 2013

8:37 AM

CONSUMER SURPLUS & PRODUCER SURPLUS

A MARKET FOR 2ND TEXTBOOK : KRUGMAN & WELLS



NEW BOOK COSTS 1500 BAHT/BOOK

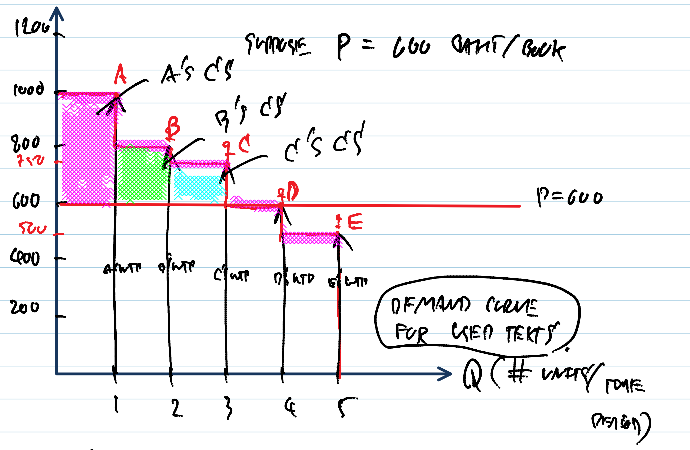
SUPPOSE.

CONSUMER SURPLUS = WILLINGNESS TO PAY (WTP) − PRICE ACTUALLY PAID

CONSUMER SURPLUS → GAINS/BENEFITS A BUYER RECEIVED FROM BUYING A GOOD.

WTP → MAXIMUM PRICE HE IS WILLING TO PAY FOR THE GOOD OR RESERVATION PRICE

BUYERS	WTP	
A	1000	
B	800	
C	750	
D	600	
E	500	



AT P=600, A, B, C, D WILL PURCHASE THE BOOKS,

A's CS = 1000 − 600 = 400

B's CS = 800 − 600 = 200

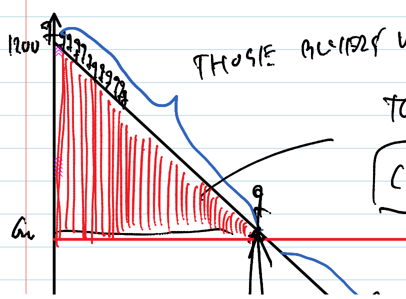
C's CS = 750 − 600 = 150

D's CS = 600 − 600 = 0

TOTAL CS = 400 + 200 + 150 + 0 = 750

> TOTAL CONSUMER SURPLUS = AREA UNDER THE DEMAND CURVE AND ABOVE THE PRICE LEVEL.

- WHEN WE HAVE THOUSAND OF BUYERS, THE DEMAND CURVE ABOVE WILL BECOME SMOOTH :



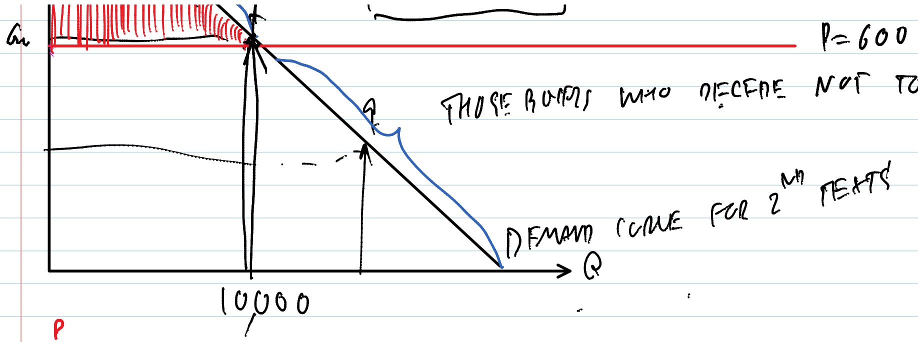
THOSE BUYERS WHO DECIDE TO PURCHASE

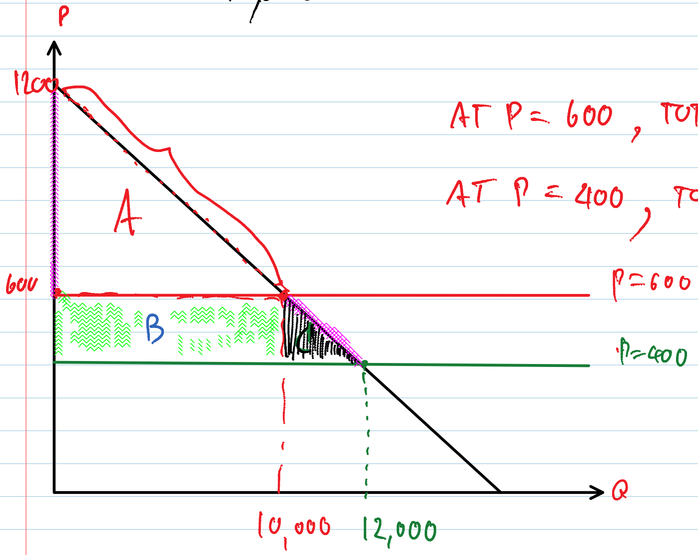
TOTAL CONSUMER SURPLUS = $\frac{1}{2} \times 10{,}000 \times 600$ = 3,000,000 (300)

$\boxed{CS = WTP - P}$

P=600

THOSE BUYERS WHO DECIDE NOT TO PURCHASE.





AT P = 600, TOTAL CS = AREA A

AT P = 400, TOTAL CS = AREA A + B + C

ΔCS = NEW CS − OLD CS

= (A + B + C) − A

= +B +C

+B: DUE TO THE FACT THAT EXISTING BUYERS CAN BUY AT LOWER PRICES.

+C: DUE TO THE FACT THAT NEW BUYERS ARRIVED AT THE MKT

PRODUCER SURPLUS : GAINS (OR BENEFITS) TO A SELLER WHEN HE OR SHE SELLS A GOOD OR SERVICE.

$$\boxed{\text{PRODUCER SURPLUS} = \text{PRICE A SELLER RECEIVES} - \text{HIS OR HER COST OF SELLING A GOOD OR SERVICE}}$$

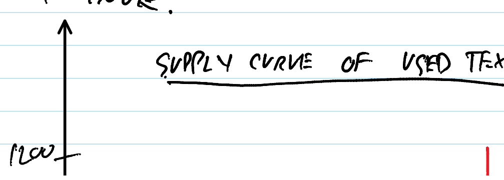
COST ≡ OPPORTUNITY COSTS (BOTH EXPLICIT COSTS AND IMPLICIT COSTS)

CONSIDER MARKET FOR USED TEXTBOOKS
THERE ARE 5 PROSPECTIVE SELLERS

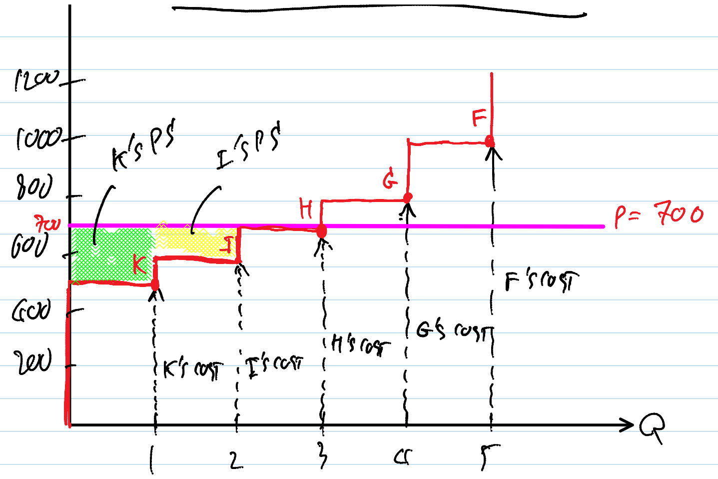
SELLERS	COSTS
F	1000
G	800
H	700

COSTS = THE LOWEST PRICE A SELLER MUST GET IN ORDER TO SELL HIS OR HER BOOK.

SUPPLY CURVE OF USED TEXTBOOKS



G	800
H	700
I	600
K	500



THE VERTICAL DISTANCE FROM THE GROUND FLOOR TO THE ROOF OF THE SUPPLY CURVE TELLS US "COSTS TO THAT SELLER."

AT $P=700$: K, I, H WILL SELL, (B/C $P \geq$ COST)

G, F WILL NOT SELL. (B/C $P <$ COST)

K's PRODUCER SURPLUS = P − COST = 700 − 500
= 200

I's PRODUCER SURPLUS = P − COST = 700 − 600
= 100

H's PRODUCER SURPLUS = P − COST = 700 − 700
= 0

TOTAL PRODUCER SURPLUS = 200 + 100 + 0
= $\underline{\underline{300}}$,

(TOTAL) PRODUCER SURPLUS = AREA ABOVE THE SUPPLY CURVE BUT UNDER THE PRICE LEVEL (OR PRICE LINE)

AGAIN, W/ THOUSANDS OF SELLERS, IMAGINE THAT THE SUPPLY WILL BECOME SMOOTH :

• AT $P=500$, PS = AREA A

• AT P = 700, PS = AREA A + B + C

Δ PS = NEW PS − OLD PS

= (A+B+C) − (A)

= + B + C

WHEN PRICE GOES UP, PRODUCER SURPLUS INCREASES BY TWO CHANNELS:

FIRST CHANNEL: GAINS RECEIVED BY "NEW SELLERS" WHO NOW DECIDE TO SELL THEIR BOOK AT THE NEW HIGHER PRICE.

[AREA C]

SECOND CHANNEL: GAINS RECEIVED BY "PREVIOUS SELLERS" WHO NOW GET A BETTER PRICE.

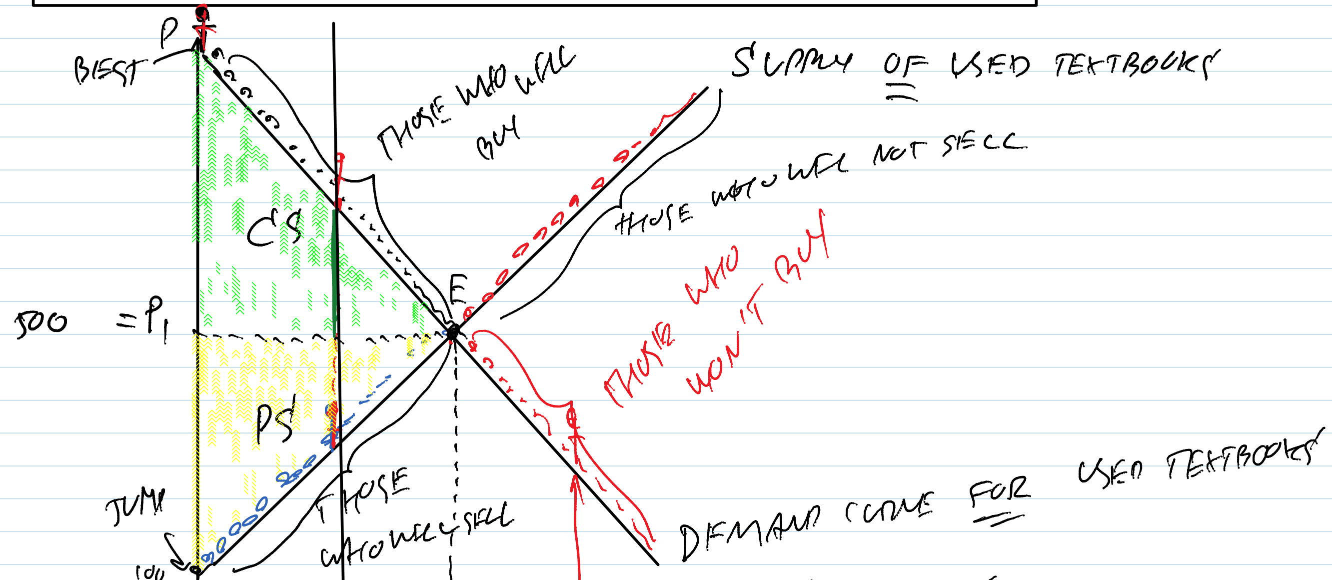
(B/F P = 500
NOW P = 700)

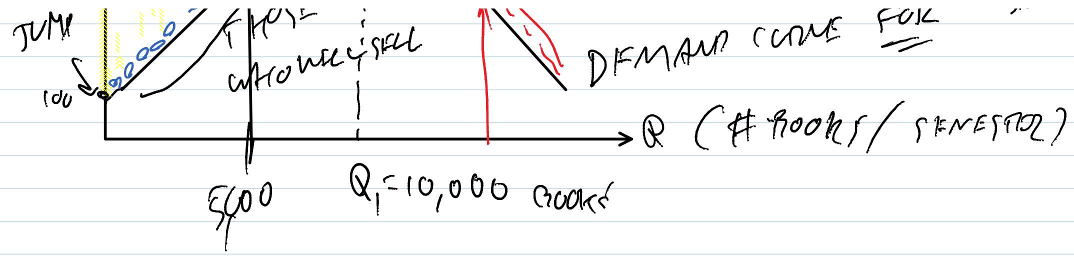
DIY: (FULLY) EXPLAIN WHY SELLERS ARE UPSET ☹ WHEN PRICE FALLS?

LET'S SEE TOTAL HAPPINESS RECEIVED BY ALL WHEN A MARKET EXISTS...

ALL — BOTH BUYERS AND SELLERS

TOTAL SURPLUS = CONSUMER SURPLUS + PRODUCER SURPLUS




JUMP
100
DEMAND CURVE FOR
Q (# BOOKS / SEMESTER)
Q1 = 10,000 BOOKS