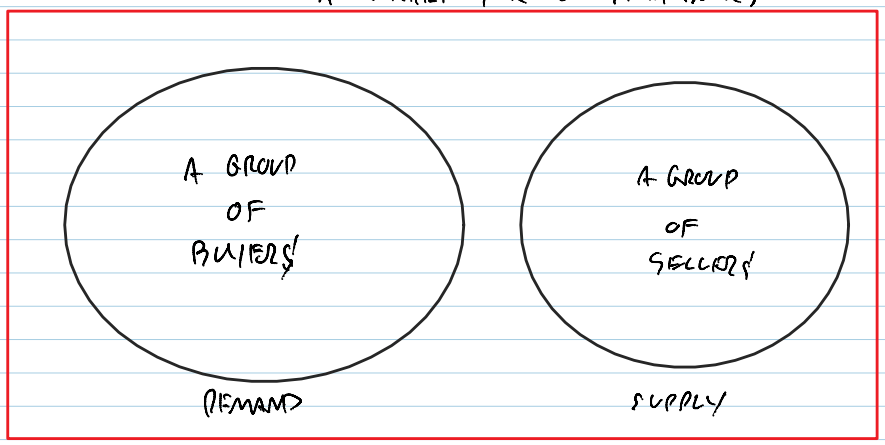
CONSUMER SURPLUS & PRODUCER SURPLUS

A MARKET FOR 2ND TEXTBOOKS



1ST HAND COPY, P = 1500 / UNIT / BOOK

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

= MAXIMUM PRICE A BUYER IS WILLING TO PAY FOR THE BOOK.

"VALUE" WHAT YOU GET FROM THE GOOD

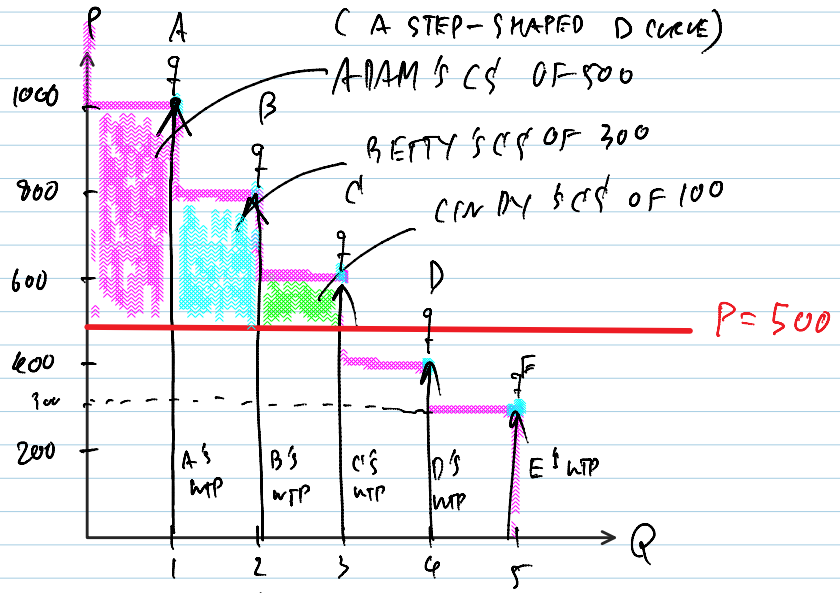
VS.

"PRICE" = WHAT YOU PAY FOR

= RESERVATION PRICE

BUYERS	WTP
A	1000
B	800
C	600
D	400
E	300

DEMAND CURVE FOR USED TEXTBOOKS (A STEP-SHAPED D CURVE)



- THE HEIGHT FROM THE GROUND TO THE ROOF OF THE DEMAND CURVE REPRESENTS A CONSUMER'S WTP !

AT P = 500, A, B, C WILL PURCHASE

A'S CS = 1000 − 500 = 500

B'S CS = 800 − 500 = 300

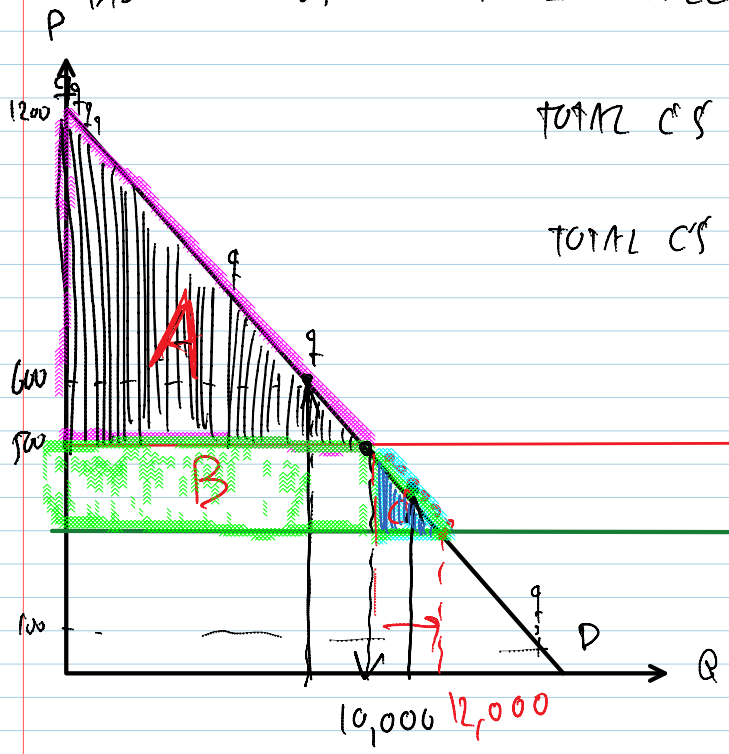
C'S CS: 600 − 500 = 100

TOTAL CONSUMER SURPLUS = 500 + 300 + 100
= 900

GAINS TO BUYERS WHEN THEY ARE ABLE TO BUY TEXTS

TOTAL CS = AREA UNDER THE DEMAND CURVE BUT ABOVE PRICE LEVEL.

- WHEN WE HAVE THOUSAND OF BUYERS, YOU CAN IMAGINE THAT DEMAND CURVE ABOVE WILL BECOME SMOOTH."



TOTAL CS = $\frac{1}{2} \times 10{,}000 \times 700 = 3{,}500{,}000$ (350)

TOTAL CS: THE SUM OF ALL BUYERS' CS.

P = 500

P = 300

OLD CS = A

NEW CS = A + B + C'

Δ CS = NEW CS − OLD CS
= A + B + C' − A
= + B + C'

- WHEN P DROPS FROM 500 TO 300, TOTAL CS INCREASES BY 2 AREAS: B AND C'.

INCREASE IN CS DUE TO THE FACT THAT NEW BUYERS BUY THE

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CS DUE TO THE FACT THAT EXISTING BUYERS CAN BUY AT A LOWER PRICE

NEW BUYERS BUY THE BOOKS.

DIY: EXPLAIN THE EFFECT OF A PRICE INCREASE ON TOTAL CONSUMER SURPLUS. SUPPLEMENT YOUR EXPLANATION W/ A DIAGRAM.

PRODUCER SURPLUS: NET GAIN TO A SELLER WHEN HE OR SHE SELL A GOOD OR SERVICE

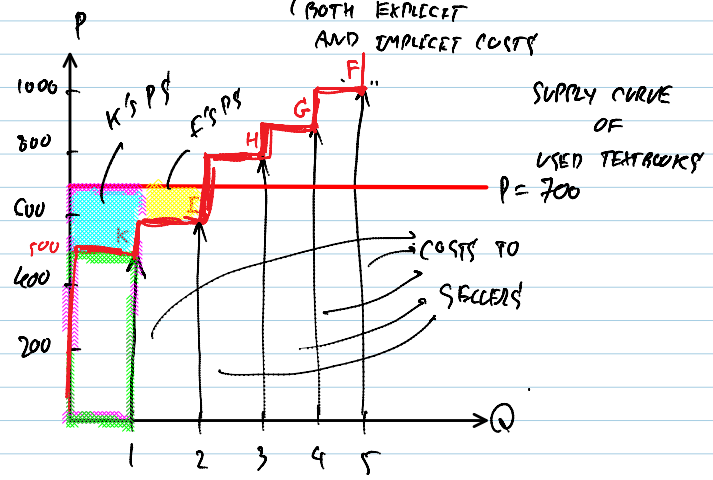
PRODUCER SURPLUS = PRICE A SELLER GETS − HIS COST OF SELLING A GOOD OR SERVICE.

≡ OPPORTUNITY COSTS (BOTH EXPLICIT AND IMPLICIT COSTS)

CONSIDER A MARKET FOR TEXT BOOKS.

SUPPOSE THERE ARE 5 PROSPECTIVE SELLERS: F, G, H, I, K.

SELLERS	COSTS
F	1000
G	900
H	800
I	600
K	500



COSTS TO A SELLER = HEIGHT FROM THE GROUND FLOOR TO THE ROOF OF SUPPLY CURVE

Ex: MR. K'S COST = 500

OR = THE LOWEST PRICE HE MUST GET IN ORDER TO SELL HIS BOOK (OR TO LET IT GO)

AT P = 700: K'S PRODUCER SURPLUS = P − COSTS
= 700 − 500
= 200

I'S PRODUCER SURPLUS = P − COSTS
= 700 − 600
= 100

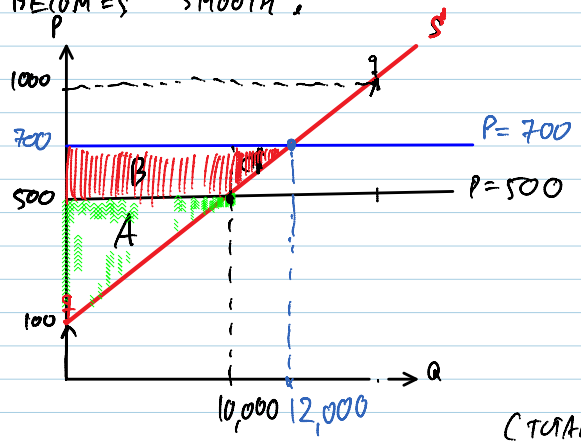
TOTAL PRODUCER SURPLUS = 200 + 100 = 300.

= SUM OF PRODUCER SURPLUSES OF ALL SELLERS (HERE, AT P = 700, WE HAVE 2 SELLERS)

PRODUCER SURPLUS = AREA ABOVE THE SUPPLY CURVE

BUT UNDER THE PRICE LEVEL (PRICE LINE)

AGAIN IF THERE ARE THOUSAND OF SELLERS, SUPPLY CURVE BECOMES SMOOTH:



AT P=500, TOTAL PS = AREA A

WHAT IF P RISES TO 700?

AT P=700, TOTAL PS = AREA A+B+C

CHANGE IN PS (ΔPS) = NEW PS − OLD PS
= (A+B+C) − (A)
= +B + C

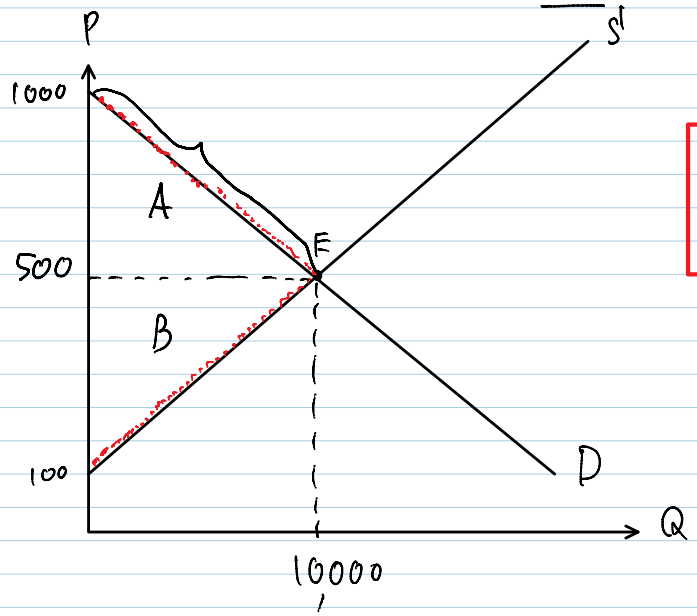
(TOTAL) PRODUCER SURPLUS INCREASES BY TWO CHANNELS:

① GAINS OBTAINED BY "NEW SELLERS" WHO SELL BOOKS AT NEW HIGHER PRICE (P=700).
[AREA C]

② GAINS OBTAINED BY "PREVIOUS SELLERS" WHO GET A BETTER PRICE (B/F, P=500; NOW P=700)
[AREA B]

DIY: EXPLAIN WHY SELLERS ARE UNHAPPY WHEN PRICE FALLS?

HAPPINESS RECEIVED BY ALL ...



TOTAL SURPLUS
= CS + PS