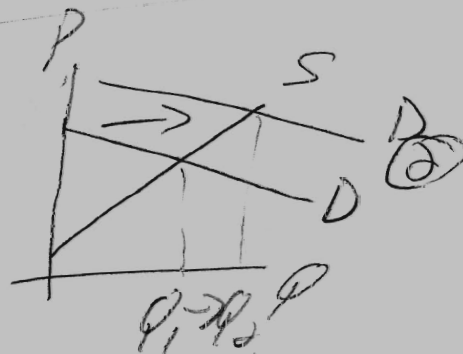


ECON 281 FINAL - W07

8 MIN

① False^①

A monopoly^② that uses FIRST DEGREE^③ PRICE DISCRIMINATION does not cause DWL.



② TRUE^①

$\uparrow P_{\text{PENS}} \rightarrow \uparrow D_{\text{PENCILS}}$
②

③ FALSE^①

$$\frac{\Delta P^d}{\Delta P^s} = \frac{\eta}{\epsilon} = \frac{1}{2} \quad ②$$

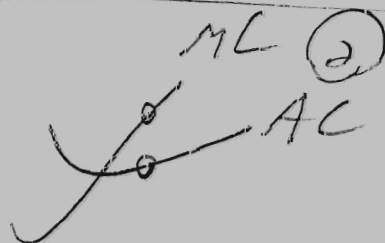
$2\Delta P^d = \Delta P^s$, suppliers pay $\frac{1}{3}$ of tax^②

④ FALSE^①

$$STC = TVC + rK \quad ④$$

⑤ $AC = \frac{100 + 2Q^2}{Q}$ TRUE^①

$$AC(10) = \frac{100 + 2(100)}{10} = 30 \quad ②$$



⑥ FALSE^①

PC = Undifferentiated products^④

ECON 281 FINAL - W07

6 MIN

Bla $\text{SUNK: } \$800 \text{ (Training)}^1$
 $\text{NON-SUNK: } \$200 \text{ (licence)}^1$
FC

Variable: $\$2 / \text{Domain}^1$

b) Explicit: $\$800 \text{ (Training)}^1$
 $\$200 \text{ (licence)}^1$
 $\$2 / \text{Domain}^1$

Implicit: $\$35,000 \text{ (speaker)}^1$
 $\$100 \text{ (10\% return)}^2$

c) Accounting: 800
costs 200
80,000 ($40K \times \$2$)
 $\$81,000^1$

Economic: $\$81,000$
costs $\$35,000 \text{ (speaker)}$
100 (10%)

$\$116,100^1$

Profit = $4(40K) = 160K$

A. Profit = $160K - 81K = 79K^2$

E. Profit = $160K - 116.1K = 43.9K^2$

ECON 281 FINAL- W07

(B2a) Min supply when

$$AVC = SMC$$

$$20 + q = 20 + 2q$$

$$0 = q$$

$$SMC = 20 + 2q$$

$$= 20 + 0$$

$$P = 20$$

$$\text{Supply: } Q^S = \begin{cases} 0 & \text{when } P < 20 \\ \frac{P - 20}{2} & \text{when } P \geq 20 \end{cases}$$

$$P = SMC$$

$$P = 20 + 2q$$

$$\frac{P - 20}{2} = Q^S$$

(b) When $P = 15$, $q = 0$

$$STC = 50$$

$$\text{When } P = 30, Q^S = \frac{30 - 20}{2} = 5$$

$$STC = 50 + 20(5) + 5^2$$

$$= 50 + 100 + 25$$

$$STC = 175$$

ECON 281 FINAL-W07

6 min

(B3) Monday: $P_M Q_M = 4(\$1) + 2(\$3)$

$$= \$10 \quad (3)$$

$$P_M Q_T = 4(\$1) + 3(\$3)$$

$$= \$13 \quad (3)$$

George picks the cheaper basket, no (1)
preferences are established

TUESDAY: $P_T Q_M = 4(\$2) + 2(\$2)$

$$= 12 \quad (3)$$

$$P_T Q_T = 4(\$2) + 3'(\$2)$$

$$= 14 \quad (3)$$

George picks the more (1) expensive basket,
he prefers TUESDAY'S basket.

$$P_T > P_M$$

George appears to be RATIONAL. (1)

Econ 281 - W07

$$L_S = 21$$
$$P_S = 21$$

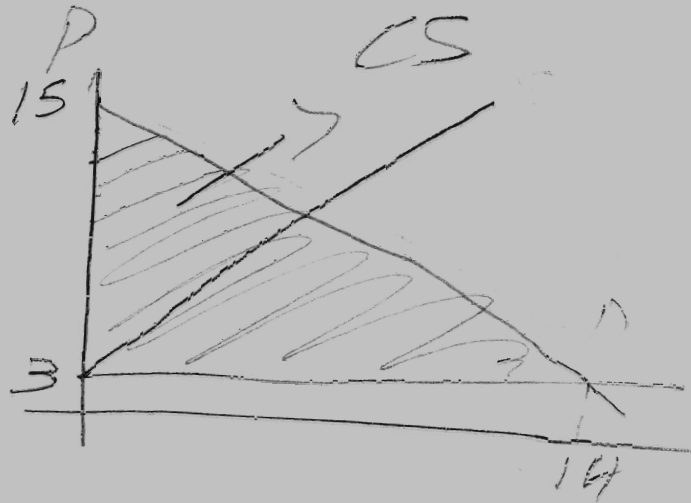
B4a

$$\begin{aligned}CS &= 1266 \\ &= 12(14)(15-3) \\ &= 84\end{aligned}$$

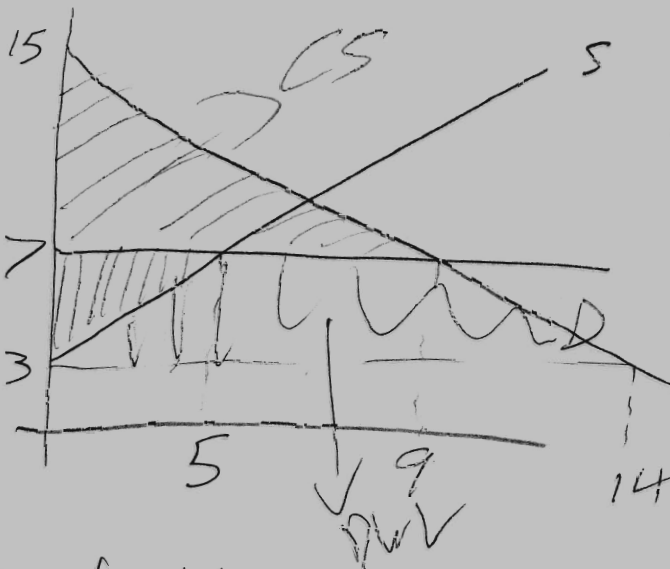
⑤

$$PS = \frac{1}{2}bh$$
$$= \frac{1}{2}(0)(0)$$

$$P5 = 0$$



6



DOMESTIC SUPPLY
= S

②

$$CS = \frac{1}{2} bh$$

$$= \frac{1}{2} (9)(15) = 67.5$$

$$LS = 36 \quad (7)$$

$$PS = \frac{1}{2}bh$$

$$= \frac{1}{2}(5)(7-3)$$

PS-107(2)

$$DWL = \text{Old Surplus} - \text{New Surplus}$$

-84- (36+10)

DWL = 38

OR $D_{WL} = \frac{1}{2}ab + m + \frac{1}{2}ab$ (3)
 $= \frac{1}{2}(5)(4) + 4(4) + \frac{1}{2}(5)(4)$
 $= 10 + 16 + 10 = 36$

ECON 281 - W07

SMIN

BSa

Firm M = Economies of Scale

→ Costs ↓ as size ↑

③ Firm A = Economies of Experience

→ Costs ↓ as cumulative Q ↑

③ Firm R = Economies of Scope

→ Costs ↓ as related products produced ↑

③ ⑥ By expanding, firm A + R can reduce prices further, pushing Firm M out.

③ AC ↓ in PC P = AC, therefore

③ competition is good for the consumer.

ECON 281 - W07

3 MIN

C1a $MU_P = 2$
 $MU_C = 1$

if $P_P = P_C$, spend ALL on pepsi ③

$$P_P = \frac{M}{P_P} = \frac{M}{1} \quad P_C = 0 \quad ⑤$$

⑥ $\frac{MU_P}{P_P} = \frac{2}{2} = 1 \quad \frac{MU_C}{P_C} = \frac{1}{1} = 1$

Since $\frac{MU}{P}$ is constant across products, the agent maximizes utility regardless of how he spends M . ⑤

Econ 281 FINAL - W07

C2a Tangency:

$$\frac{MP_L}{MP_K} = \frac{w}{r}$$

$$\frac{K}{L} = \frac{10}{15}$$

$$1.5K = L$$

$$Q = 2KL$$

$$2700 = 2K(1.5K)$$

$$900 = K^2$$

$$30 = K$$

$$1.5K = L$$

$$1.5(30) = L$$

$$45 = L$$

$$TC_L = wL$$

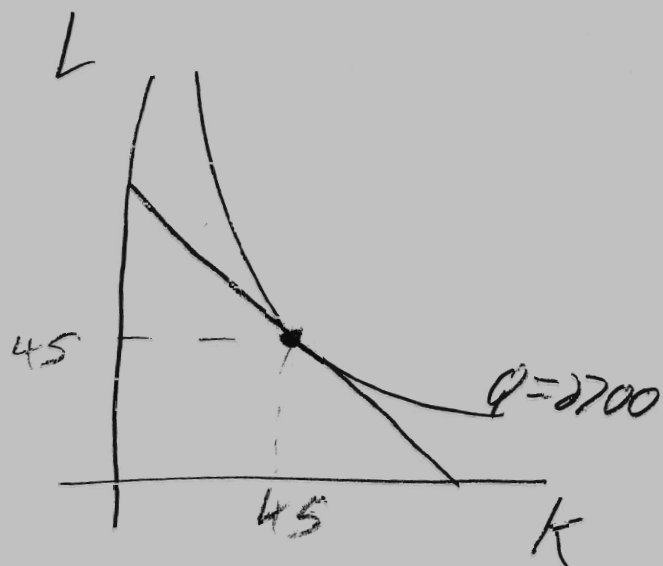
$$= 10(45)$$

$$TC_L = 450$$

$$TC_K = rK$$

$$= 15(30)$$

$$TC_K = 450$$



b) Tangency:

$$\frac{MP_L}{MP_K} = \frac{w}{r}$$

$$\frac{K}{L} = \frac{20}{15}$$

$$\frac{3}{4}K = L$$

$$Q = 2KL$$

$$2700 = 2K(\frac{3}{4}K)$$

$$1800 = K^2$$

$$42.4 = K$$

$$\frac{3}{4}K = L$$

$$\frac{3}{4}(42.4) = L$$

$$31.8 = L$$

$$TC_L = wL$$

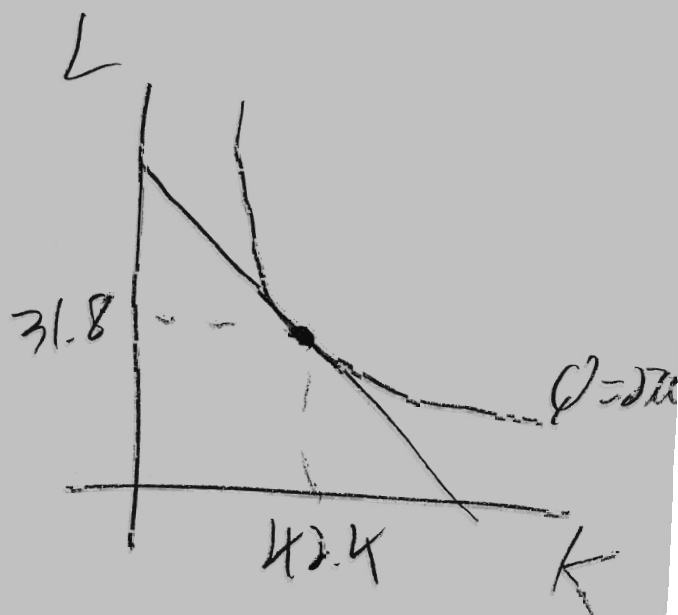
$$= 20(31.8)$$

$$= 636$$

$$TC_K = rK$$

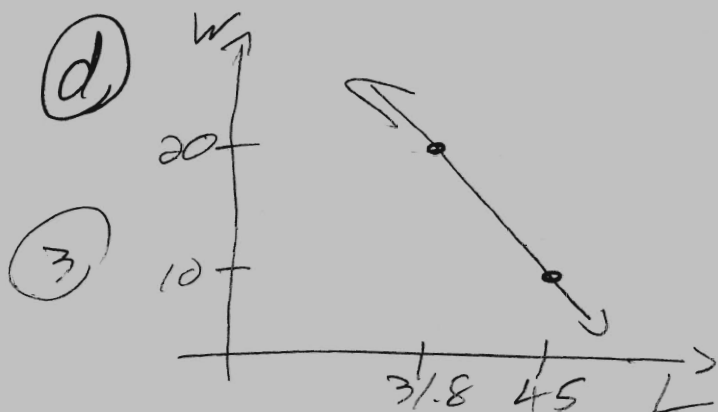
$$= 15(42.4)$$

$$= 636$$



ECON 281 - W07

- (C2c) $\rightarrow$
- ① $W \uparrow$ by \$10
 - ② $L \downarrow$ by 13.2
 - ③ $K \uparrow$ by 12.4
- (TCT) by 372



(Yes) Labour demand downward sloping.

BONUS

