

UTS 2016/2017

NOVIA

ARDIANI

1. $q = \text{quantity}$

$$P = \frac{100}{q} + 1$$

$$TR = P \times Q$$

$$5000 = \left[\frac{100}{q} + 1 \right] q$$

$$5000 = 100 + q$$

$$4900 = q$$

$$P = \frac{100}{q} + 1$$

$$= \frac{100}{4900} + 1$$

$$= 1,02$$

2. $1.440 = 0,06x + 0,075y$

$$x + y = 20.000 \rightarrow y = 20.000 - x$$

$$1.440 = 0,06x + 0,075(20.000 - x)$$

$$1.440 = 0,06x + 1500 - 0,075x$$

$$0,015x = 60$$

$$x = 60 / 0,015 = 4.000$$

$$y = 16.000$$

3. $P = 0,85 - 0,00045q$

$$TR \text{ max} \Rightarrow TR' = 0$$

$$TR = P \times q$$

$$= (0,85 - 0,00045q)q$$

$$TR = 0,85q - 0,00045q^2$$

Never put off till tomorrow what you can do today



$$TR' = 0$$

$$0,85 - 2 \times 0,000459 = 0$$

$$0,85 = 0,000918$$

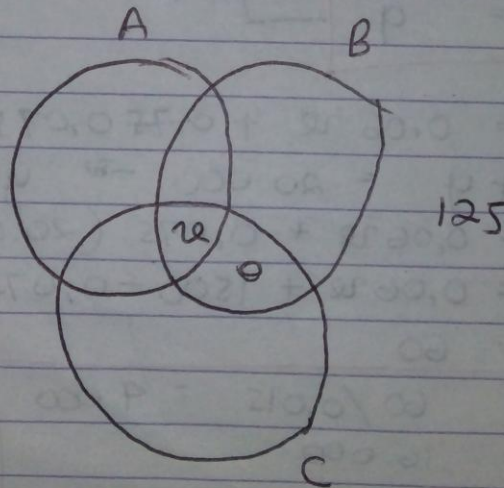
$$q = \frac{0,85}{0,000918} = 944,44$$

$$TR = -p \times q = 0,85 \times 944,44 = 802,77$$

$$TR =$$

HITUNG!!

4.



Barang A = 160

A dan B = 50

B = 200

A dan C = 60

C = 125

B dan C = 20

$$A \text{ dan } B = 50 - x = 30$$

$$A \text{ dan } C = 60 - x = 40$$

$$B \text{ dan } C = 20 - x = 0$$

$$\begin{aligned} A \text{ saja} &= 160 - (50 - x) - (60 - x) - x \\ &= 160 - 50 + x - 60 + x - x \end{aligned}$$

$$A \text{ saja} = 50 + x \quad (70)$$

$$\begin{aligned} B \text{ saja} &= 200 - (50 - x) - (20 - x) - x \\ &= 200 - 50 + x - 20 + x - x \end{aligned}$$

$$B \text{ saja} = 130 + x \quad (150)$$

$$\begin{aligned} C \text{ saja} &= 125 - (60 - x) - (20 - x) - x \\ &= 125 - 60 + x - 20 + x - x \end{aligned}$$

$$C \text{ saja} = 45 + x \quad (65)$$

$$500 = 125 + 50 + x + 130 + x + 45 + x + 50 - x + 60 - x + 20 - x$$

$$500 = 480 + x$$

$$20 = x$$

$$a. \quad x = 20$$

$$b. \quad A \text{ dan } C = 60 - x = 40$$

$$\begin{aligned} c. \quad B \text{ atau } C &= B \text{ saja} + B \text{ dan } A + C \text{ saja} + A \text{ dan } C \\ &= 150 + 30 + 65 + 40 \end{aligned}$$

$$d. \text{ Aden B} = 30$$

$$\text{B don C} = 0$$

$$\text{Aden C} = 90$$

$$\underline{70}$$

5.

$$p^s = p^d$$

$$8/100 q + 50 = -7/100 q + 65$$

$$8q + 5000 = -7q + 6500$$

$$15q = 1500$$

$$q = 100$$

$$p = 8/100 (100) + 50$$

$$= 8 + 50 = 58$$

awal

a. dikenakan pajak sebesar 1,5 / unit.

$$p^s_t = p^s + t = 8/100 q + 50 + 1,5$$

$$p^s_t = 8/100 q + 51,5$$

$$p^s_t = p^d$$

$$8/100 q + 51,5 = -7/100 q + 65 \quad \times 100$$

$$8q + 5150 = -7q + 6500$$

$$15q = 1350$$

$$q = 90$$

$$p = 58,7$$

set. pajak

Terjadi perubahan keseimbangan

tambahan :

$$1) \text{ Pajak diterima pemerintah (T)} = Q_2 \cdot t$$

$$= 1.350 \times 1,5 = 2.025$$

$$2) \text{ Pajak ditanggung konsumen (T_d)} = Q_2 (P_2 - P_1)$$

$$= 1.350 (59,5 -$$

b. Sebelum pajak

$$TR = P \times q \\ = 58 \times 100 = 5.800$$

Sesudah Pajak

$$TR = P_2 \times q_2 \\ = 58,7 \times 90 = 5.283$$

6. (b)
$$\begin{aligned} x &= 3p + 2q + r & p &= 800 \\ y &= 2p + 4r & q &= 870 \\ z &= 4p + 9q + 3r & r &= 650 \end{aligned}$$

$$800 = 3x + 2y + 4z$$

$$870 = 2x + 4z$$

$$650 = x + 4y + 3z$$

$$\begin{bmatrix} 3 & 2 & 4 \\ 2 & 0 & 4 \\ 1 & 4 & 3 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 800 \\ 870 \\ 650 \end{bmatrix}$$

① Cari det keseluruhan

$$\det A = \begin{vmatrix} 3 & 2 & 4 & 3 & 2 \\ 2 & 0 & 4 & 2 & 0 \\ 1 & 4 & 3 & 1 & 4 \end{vmatrix}$$

$$= (0 + 18 + 32) - (0 + 108 + 12)$$

$$= -70$$



No.

Date:

☐ monday☐ tuesday☐ wednesday☐ thursday☐ friday☐ saturday

$$\det x = \begin{bmatrix} 800 & 2 & 4 & | & 800 & 2 \\ 870 & 0 & 9 & | & 870 & 0 \\ 650 & 4 & 3 & | & 650 & 4 \end{bmatrix}$$

$$(0 + 11.700 + 13.920) - (0 + 28.800 + 5.220) = -8.400$$

$$\det y = \begin{bmatrix} 3 & 800 & 4 & | & 3 & 800 \\ 2 & 870 & 9 & | & 2 & 870 \\ 1 & 650 & 3 & | & 1 & 650 \end{bmatrix}$$

$$= (7.830 + 7.200 + 5.200) - (3.480 + 17.550 + 4800) = -5.600$$

$$\det z = \begin{bmatrix} 3 & 2 & 800 & | & 3 & 2 \\ 2 & 0 & 870 & | & 2 & 0 \\ 1 & 4 & 650 & | & 1 & 4 \end{bmatrix}$$

$$= (0 + 1.740 + 6.400) - (0 + 10.440 + 2.600) = -4.900$$

$$x = \frac{-8400}{-70} = 120$$

$$y = \frac{-5.600}{70} = 80$$

$$z = \frac{-4.900}{70} = 70$$