**Lab 07 Answers**

1)

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2)

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4)

a)

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b)

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c)

A screenshot of a math problem

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d)

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4)

a)

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b)

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c)

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7)

a)

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b)

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**c & d)**

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**e)**

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**f)**

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**8)**

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**9)**

**a) Industry = Output of firm A + B + C**

**b) Graph all industry outputs to graphs**

**c)**

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**10)**

**a)**

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**b)**

**Plot points of MC, ATC & AVC onto graph**

**c)**

**Produce zero output at prices below min of AVC**

**d)**

**Let Price = MC and choose range where price fit in between**

**11)**

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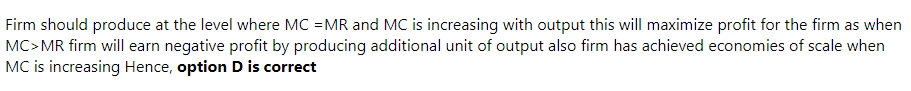
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**12)**

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**13)**

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**14)**

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**15)**

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**17)**

**TR = P \* Q = $0.97 \* 30 = 29.1$**

**TC = TVC + TFC = 3+ 18 = 24$**

**Total profit per unit = TR – TC = 29.1 – 24$ = 5.1$ (ans 2)**

**Profit per unit = 5.1$/30 units = 0.17$ (ans 1)**

**18)**

**a)**

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**b)**

**A screenshot of a computer screen

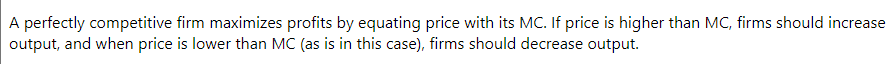
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**c)**

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**20)**

****

**MC = 0.87$**

**MP = 1.00$**

**MP > MC so continue expanding its output**

**21)**

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**23)**

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**24)**

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**25)**

**a)**

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**A table of numbers and calculations

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b)

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c)

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A paper with math equations

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26)

Price < AVC < ATC, so it is suffering losses thus will contract

28)

c)

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29)

a-b)

MR is equal to twice the slope of D. Idk why MC’s curve is at bottom

30)

a)

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b)

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c)

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31)

**a)**

**Profit per unit = P – ATC = 17 – 6 = 11$**

**Profit = Profit per unit \* qty = 11$ \* 500 = 5500$**

**The firm should produce the same output in order to maximize profits because MR equals MC**

**b)**

**Profit per unit = P – ATC = 19 – 3.50 = 15.5$**

**Profit = Profit per unit \* qty = 15.5$ \* 600 = 9300$**

**The firm should increase output in order to maximize profits because MR greater than MC**

**c)**

**Profit per unit = P – ATC = 10 – 6 = 4$**

**Profit = Profit per unit \* qty = 4$ \* 630 = 2520$**

**The firm should decrease output in order to maximize profits because MR less than MC**

**(repeat for all other exercises)**

**32)**

**a) Price = Qty where MC = MR \* Demand curve**

**c)**

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**33)**

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**34)**

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**35)**

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**36)**

**a)**

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**37)**

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**38)**

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**39)**

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**41)**

**We must have MR = MC.**

**Let Q = 6**

**MR = 25 – 4Q => 25 – 24 = 1**

**MC = 1**

**42)**

**To calculate this, we want to last number of meals where MR > MC. We have the following table:**

**A table with numbers and dollar signs

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**We can add the following columns based on our calculations:**

|  |  |  |  |
| --- | --- | --- | --- |
| **TC (TVC + TFC) in $** | **TR (price\*qty)** | **MR (delta TR)** | **MC (delta TC)** |
| 150 | 0 | 325 | 250 |
| 400 | 325 | 275 | 200 |
| 600 | 600 | 225 | 200 |
| 800 | 825 | **175 <-** | **165 <-** |
| 965 | 1000 | 125 | 195 |
| 1160 | 1125 | … | … |
| 1380 | 1200 |  |  |
| 1605 | 1225 |  |  |

**At 400 meals per day, we see that it is last time where MR > MC so 400 meals a day is the answer**

**43)**

|  |  |  |  |
| --- | --- | --- | --- |
| **PRICE $** | **Qty Demanded** | **TR** | **MR** |
| **8** | **6** | **48** | **-** |
| **7** | **7** | **49** | **1** |
| **6** | **8** | **48** | **-1 <- (lowest lvl)** |
| **5** | **9** | **45** | **-3** |
| **…** | **…** | **…** | **…** |

**45)**

**a)**

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**Cartel must reduce quantity and raise price**

**b)**

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**c)**

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**d)**

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**46)**

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**47)**

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**48)**

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**50)**

**a)**

**Quantity where MR = MC (120)**

**Price of MR = MC ($400)**

**b)**

**Consumer surplus is calculated on triangle part shown below:**

**A graph of a line

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**so consumer surplus = (delta qty \* delta price)/2 = ( (80-0) \* (1000-600) )/2**

**= 16 000$**

**c)**

**If perfect price discrimination is put in place, then no consumer surplus, thus 0$**

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**d) missed explanation oops**

**51)**

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**52)**

**1.**

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**2.**

**Last unit sold price is 100$ at the qty where consumers are willing to buy at profit maximizing output level**

**3.**

**Profit = Price \* Quantity**

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**53)**

**Monopolist practicing perfect price discrimination does not leave consumer surplus so it profits entire area**

**54)**

**Single-price monopoly = profit without consumer surplus area**

**55)**

**Deadweight area shown by on the right side of the profit area**

**Resources:**

https://www.studocu.com/en-ca/document/mcgill-university/econometrics/economics-662-lab-9/20342327

https://www.studocu.com/en-ca/document/mcgill-university/econometrics/economica-662-lab-10/20342324