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## Econ 1

## More from Bozoworks

Here is a slightly more difficult version of the Bozoworks problem. You might want to work through this one as well.

1. Bozoworks has exclusive rights to sell the game Space Morons. Bozoworks spent $\$ 2500$ on creating the program. Its only remaining costs are $\$ 4$ for each copy sold. If Bozoworks sells $Q$ copies, its total costs are $\$ 2500+4 Q$. Nobody will pay more than $\$ 80$ for a copy of Space Morons. There are 34 demanders with buyer values of $\$ 80$ for a copy of Space Morons. For every dollar that the price falls below $\$ 80$, Space Morons picks up one more buyer. Thus there is 1 demander who has buyer value $\$ 79$, one with buyer value $\$ 78$, one with buyer value $\$ 77$, and so on. Bozoworks' marginal revenue from increasing its sales from 34 to 35 is:
(a) $\$ 80$
(b) $\$ 2,720$
(c) $\$ 40$
(d) $\$ 45$
(e) $\$ 160$
2. Which of the following formulas gives the highest price at which Bozoworks can sell $Q$ copies of Space Morons, where $34<Q<114$ ?
(a) $P=80-2 Q$
(b) $P=114-Q$
(c) $P=97-2 Q$
(d) $P=80-Q$
(e) None of the above
3. Where $34<Q<114$, if Bozoworks wants to increase its sales from $Q$ to $Q+1$, it will have to reduce its price on the $Q$ units it was previously selling by one unit. This effect would reduce its revenue from the first $Q$ units sold by $\$ Q$. On the other hand, it could sell this extra unit for a price of $114-(Q+1)$. So its extra revenue from increasing its sales from $Q$ to $Q+1$ is given by:
(a) $\quad M R=46-Q$
(b) $\quad M R=5 Q$
(c) $M R=113-2 Q$
(d) $M R=80-Q$
(e) $M R=80-2 Q$
4. Bozoworks can increase its profits by increasing its sales from $Q$ to $Q+1$ if and only if
(a) the price is greater than $\$ 5$.
(b) the price is greater than its average cost.
(c) marginal revenue is greater than $\$ 5$.
(d) marginal revenue is greater than average revenue.
(e) average cost will decrease when an extra unit is produced.
5. Bozoworks would maximize its profits by selling:
(a) 54 copies
(b) 108 copies
(c) 34 copies
(d) 74 copies
(e) 80 copies

## ANSWER KEY <br> VERSION NUMBER 1 <br> Econ 1 <br> More from Bozoworks

| Exam <br> Question <br> Number | Answer | Database <br> Question <br> Number | Last <br> Used | Average <br> Score | Discrimination <br> Index |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 1 | D | 7.5 | S01 | 75 | 42 |
| 2 | B | 7.6 | Never |  |  |
| 3 | C | 7.7 | Never |  |  |
| 4 | C | 7.8 | W99 | 60 | 50 |
| 5 | A | 7.9 | Never |  |  |
| Estimated Exam Score is 67.50 percent |  |  |  |  |  |

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| :--- | :---: |
| 1 | D |
| 2 | B |
| 3 | C |
| 4 | C |
| 5 | A |

