

Math 1313
Homework 2
Section 1.5b(2nd Half)

Use the following problem to answer questions 1 – 3

The cost for producing a certain product is \$29 each. The fixed costs are \$84000. The selling price for each product is \$85.

1. What is the profit function?
 - a. $P(x) = 85x - 84000$
 - b. $P(x) = 29x - 84000$
 - c. $P(x) = 56x + 84000$
 - d. $P(x) = 29x + 84000$
 - e. $P(x) = 56x - 84000$
2. What is the break-even quantity?
 - a. 1,500
 - b. 4,800
 - c. 1,846
 - d. 2,000
 - e. 4,500
3. What is the break-even point?
 - a. (1500, 0)
 - b. (4800, 432000)
 - c. (1846, 132912)
 - d. (1500, 127500)
 - e. (2000, 144000)

Use the following problem to answer questions 4 and 5.

A company manufactures benches. The cost for producing each bench is \$143. The fixed costs are \$399000. The selling price for each benches is \$428.

4. What are the cost, revenue and profit functions?
 - a. $C(x) = 143x - 399000$, $R(x) = 428x$, $P(x) = 285x - 399000$
 - b. $C(x) = 143x + 399000$, $R(x) = 428x$, $P(x) = 285x - 399000$
 - c. $C(x) = 143x$, $R(x) = 428x$, $P(x) = 428x + 399000$
 - d. $C(x) = 143x + 399000$, $R(x) = 143x$, $P(x) = 285x + 399000$
 - e. $C(x) = 143x + 399000$, $R(x) = 428x$, $P(x) = 285x + 399000$
5. What is the break-even point?
 - a. (932.24, 399000)
 - b. (1400, 599200)
 - c. (2790.21, 1194209.85)
 - d. (1400, 0)
 - e. (932.24, 0)

Use the following problem to answer questions 6 and 7.

The cost for producing a certain product is \$63 each. The fixed costs are \$23450. The selling price for each product is \$179.

6. If 189 products were produced and sold, there would be a
 - a. Profit

Math 1313
Homework 2
Section 1.5b(2nd Half)

- b. Loss
7. If 217 products were produced and sold what would be the Profit(Loss).
- a. -9625
 - b. 38843
 - c. -9779
 - d. 1722
 - e. 37121
8. The choices for problem number 12 part d from the book are given below.
- a. 15000
 - b. 216000
 - c. 441000
 - d. 456000
 - e. 240000
9. The choices for problem number 12 part f from the book are given below.
- a. Loss of \$30600
 - b. Profit of \$185400
 - c. Loss of \$9000
 - d. Profit of \$635400
 - e. Profit of \$216000
10. The choices for problem number 16 part c from the book are given below.
- a. (12000, 0)
 - b. (30000, 0)
 - c. (12000, 30000)
 - d. (20000, 300000)
 - e. (20000, 480000)