

Math 111 B - Autumn 2011
Mid-Term Exam Number Two
November 17, 2011
Answers

There were two versions of the exam.

In version A, in problem 1, you sell Objects for \$35.

1. (a) $TC(q) = 2.8q + 1120$ (b) $q = 34.78$ (c) $MC = 2.8$ (d) $q = 136.585$
2. (a) $q = 49.0512$ and $q = 1630.95$ (b) 840 (c) \$62560 (d) $MC(q) = 0.2q + 2.1$ (e) $q = 189.5$
3. (a) 27.3607 (b) 19.4444 (c) $A(x) = x \left(\frac{10}{\sqrt{x}} + 1 \right)$ (d) $x = 3.4435$

In version B, in problem 1, you sell objects for \$18.

1. (a) $TC(q) = 6.8q + 2280$ (b) $q = 203.57$ (c) $MC = 6.8$ (d) $q = 1036.364$
2. (a) $q = 7.5522$ and $q = 1324.11$ (b) $q = 665.83$ (c) \$ 130000.2 (d) $MC(q) = 0.6q + 0.8$ (e) $q = 498.666$
3. (a) 36.284 (b) 44.4444 (c) $A(x) = x \left(\frac{10}{\sqrt{x}} + 1 \right)$ (d) $x = 5.838015$