

MATH 111 – FINAL EXAM Answers
Winter 2015

1. (a) ~ 19 hundred dollars
(b) ~ 0.65 dollars per Thing
(c) ~ 12.5 hundred dollars
(d) ~ 0.60 dollars per Thing
(e) $q \approx 8.5$ hundred Things
2. (a) ~ 1.25 dollars per month
(b) $t \approx 1.6, 2.3, 3.7$ months
(c) There are several correct answers. One is from $t \approx 10.1$ to $t \approx 11.1$ months
3. (a) $t = 2.24$ and $t = 12.76$ seconds
(b) $t = 7.5$ seconds
(c) $\frac{A(t+5) - A(t)}{5} = 12.5 - t$
(d) $t = 11.4$ seconds
4. (a) $TR(q) = -1.5625q^2 + 89q$, $TC(q) = 14q + 500$
(b) $q = 8, 40$ Items
(c) 18.69 dollars per Item
(d) 400 dollars
5. (a) 2.3 years
(b) \$313,104
(c) \$298,896
(d) \$269,474
6. (a) Bart's APY is 4.29%, Lisa's APY is 4.24%
(b) $t = 0.25$ years
(c) 5.32%
(d) 23.76%
7. (a) 278 payments
(b) \$521.53