Answers to Math 111 Winter 2018 Final Problems

1. (a) About 26.7 milometers per hour.
   (b) About 60.6 kilometers per hour.
   (c) At 1.4 and 3 hours.
   (d) At about 0.7 hours with approximately 15.5 k,.
   (e) Approximately from 0.3 to 1.1 and 1.9 to 2.7 hours.

2. (a) At 100 Sombreros.
   (b) $12,000$
   (c) 6.2 dollars per Libro.

3. (a) $SP \approx \$1.25$, $BP \approx \$1.75$.
   (b) $TC(100) \approx 494$, $VC(100) \approx 292$, $FC = 200$.
   (c) 2.9
   (d) 0.2 dollars per Tsanta
   (e) At about 435 Tsantas the maximum profit is about $309.

4. (a) $MC(q) = 10q + 1.55$ dollars per Koupa.
   (b) 631 Koupas
   (c) 3594.38
   (d) 22.78 dollars per Koupa

5. (a) $p = -0.4q + 53$
   (b) 35 bags at 39 dollars each

6. (a) $67,500$
   (b) 108%
   (c) 57 minutes.

7. (a) When you borrow $100,You pay back $120.40, $120.46 and $120.26 dollars to Banks A, B and C, respectively.
   (b) 8.05 years

8. (a) $254,307.45$
   (b) $485,456.81$
   (c) $433,626.43$