Name:
Homework 2 solutions
Math 151, Applied Calculus, Spring 2018

Note: for solutions to odd numbered problems - see the text.
Section 1.7 – 1,2,3,10,33,35

1. In both cases the initial deposit was \$20. Compounding continuously earns more interest than compounding annually at the same interest rate. Therefore, curve A corresponds to the account which compounds interest continuously and curve B corresponds to the account which compounds interest annually. We know that this is the case because curve A is higher than curve B over the interval, implying that bank account A is growing faster, and thus is earning more money over the same time period.

2. $C = 2$, the intial amount, $\alpha = -\ln(2)$ so that $y(2) = 2e^{2(\ln 2)} = 0.5$.

10 a We have a continuous rate, therefore $W = 18,000e^{0.27t}$.

b $t = 9.745$

33 \$35,365.34

35 \$6549.85.