Worksheet 15
Math 181: Fall 2015

Simplify your answers. (You can use a calculator on this worksheet.)

1. Consider a loan of $8,000 with an annual rate of 5%. If no payments are made, what will be the total amount owed after 3 years if

   (a) the account earns simple interest?

   \[ A = \]

   (b) the interest compounds monthly?

   \[ i = \]

   \[ A = \]

2. Suppose I have a student loan with principal $10,000 and a nominal annual interest rate of 6%, compounded monthly.

   (a) If I want to pay off my loan in 10 years what should be my monthly payment and how much will I end up paying in interest?

   (b) If I want to pay off my loan in 8 years what should be my monthly payment and how much will I end up paying in interest?

   (c) If I want to pay off my loan in 6 years what should be my monthly payment and how much will I end up paying in interest?