Problem 1 – Introducing Compounding

1. Define or explain the following terms:

a. Compounding Interest:

b. Nominal Rate:

c. Effective (Annual) Rate:

2. As a college freshman, a student takes out a $10,000 school loan at 8% interest compounded monthly. This loan is unsecured (interest accumulates while in school, but payment is not required until after graduation). What will the value be of this loan after 4 years?

3. What is the effective annual interest rate for this loan?

Problem 2 – Nominal and Effective Rates via Nspire

4. Find the effective rate if the nominal rate for a savings account is 4.5% compounded daily.

5. Find the nominal rate for a credit card account if the effective rate is 19.5618% compounded monthly.

Problem 3 – Finance Solver

6. Let's say that you want to buy a convertible that costs $32,035. You are offered a 60 month loan at 7.11%, compounded annually.

What will the monthly payment amount be?