# Hello Cucumber Exercise 1:

Create a Financial Calculator which implements at a minimum the ability to calculate *monthly payment* and *loan balance* on amortized mortgages.

The following formula is used to calculate the fixed monthly payment **(P)** required to fully amortize a loan of **(L)** dollars over a term of **n** months at a monthly interest rate of **c** (if the quoted rate is 6%, for example, c is .06/12 or .005).

P = L[c(1+c)n] ÷ [(1+c)n-1]

The following formula calculates the remaining loan balance **(B)** of a fixed payment loan after **p** months

B = L[(1+c)n-(1+c)p] ÷ [(1+c)n-1]

Support the calculation of other variables based on a known **P** or **B.**

1. Build the exercise within the *sapient-cucumber-example* project. Some stub file placeholders exists within the project
2. Apply BDD practices to develop the specification
3. Develop the java implementation of the financial calculator
4. Develop the java Cucumber steps
5. Demonstrate the varying forms of Cucumber parameter passing
6. Demonstrate the use of passing structured data in tables
7. Demonstrate the use of a Scenario Outline
8. Demonstrate command of the runner by showing:
   1. execution of a single scenario through the *features* option
   2. execution of a limited number of scenarios through the *tag* option
   3. execution of all the scenarios
9. Demonstrate reporting of success and failures through the Cucumber html report
10. Create a new hook with a tag called ***@financial*** and demonstrate that is executes