Program Assignment #2

1. Write a program that reads an integer between 0 and 1000 and adds all the digits in the integer. For example, if an integer is 843, the sum of all its digits is (8 + 4 + 3) = 15.

   (Hint) Use the % operator to extract digits, and use the / operator to remove the extracted digit. For example, 843 % 10 = 3 and 843 / 10 = 84.
   Here is a sample run:

   ```
   Enter a number between 0 and 1000: 843 ↵
   The sum of the digits is 8 + 4 + 3 = 15
   ```

2. Write a program that reads in investment amount, annual interest rate, and number of years and displays the future investment value using the following formula:

   $$futeureInvestmentValue =$$
   $$investmentAmount \; X \; (1 + monthlyInterestRate)^{numberOfYears*12}$$

   For example, if you enter amount 1000, annual interest rate 3.25%, and number of years 1, the future investment value is 1032.98. (Displays only up to two decimal places.)
   Here is a sample run:

   ```
   Enter investment amount: 1000 ↵
   Enter annual interest rate in percentage: 3.25 ↵
   Enter number of years: 1 ↵
   The future value is $1032.98
   ```