ICP Lab Assignment 5(A)

Q1. Write a program to read numbers repeatedly from the keyboard until a negative number is entered, and then calculate the average of all non-negative numbers.

Q2. Write a program that inputs a positive integer (a) larger than 1 and calculates the sum of the squares from 1 to that integer (for example, if the integer equal to 4, the sum of the squares is 30 (1 + 4 + 9 + 16)). Display on the screen the sum of squares. Use a prompt for inputting data.

Write three separate program to solve this problem using
(a) a while statement
(b) a do-while statement
(c) a for statement

Q3. Write a program that will read a positive integer and determine and print its binary equivalent.
(Hint: The bits of the binary representation of an integer can be generated by repeatedly dividing the number and the successive quotients by 2 ans saving the remainder, which is either 0 or 1, after each division.)

Q4. Write program to print the following patterns using loops (for, while and do-while).

a.

```
        *
      * * *
    * * * * *
  * * * * * * *
* * * * * * * * *
```

b.

```
* * * * * * * *
 * * * * * * *
   * * * * *
     * * *
       *
```

c.

```
*
*  *
*  * *
*  * * *
*  * * * *
*  * * * * *
```

d.