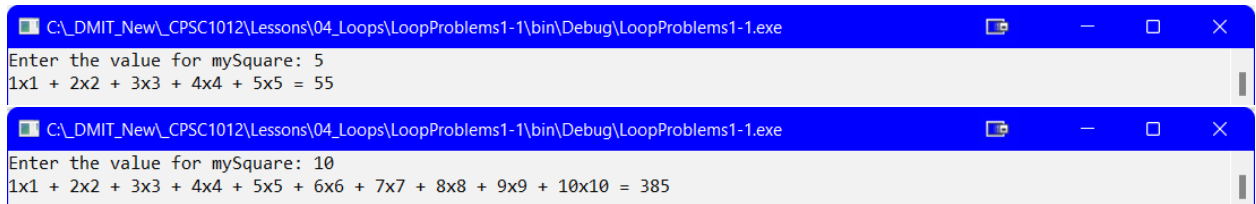


## Loop Problems 1

Provide solutions to each of the problems below.

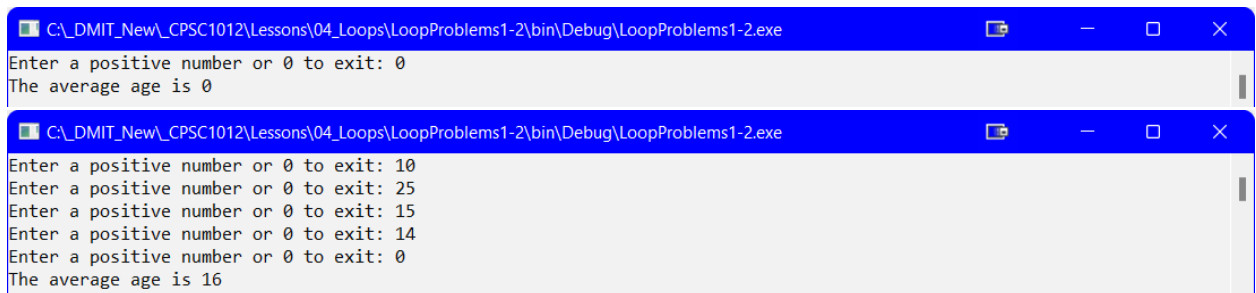
1. Find the sum of the squares of the integers from 1 to **mySquare**, where **mySquare** is input by the user, e.g., user enters 4 then return  $1 \times 1 + 2 \times 2 + 3 \times 3 + 4 \times 4 = 30$ .



```
C:\DMIT_New\CPSC1012\Lessons\04_Loops\LoopProblems1-1\bin\Debug\LoopProblems1-1.exe
Enter the value for mySquare: 5
1x1 + 2x2 + 3x3 + 4x4 + 5x5 = 55

C:\DMIT_New\CPSC1012\Lessons\04_Loops\LoopProblems1-1\bin\Debug\LoopProblems1-1.exe
Enter the value for mySquare: 10
1x1 + 2x2 + 3x3 + 4x4 + 5x5 + 6x6 + 7x7 + 8x8 + 9x9 + 10x10 = 385
```

2. Input a list of positive numbers from the user and then calculate and display the average age. Use the input of the number zero (i.e., 0) to stop prompting for numbers.

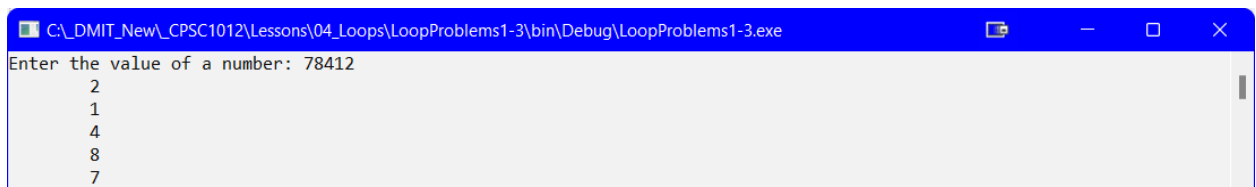


```
C:\DMIT_New\CPSC1012\Lessons\04_Loops\LoopProblems1-2\bin\Debug\LoopProblems1-2.exe
Enter a positive number or 0 to exit: 0
The average age is 0

C:\DMIT_New\CPSC1012\Lessons\04_Loops\LoopProblems1-2\bin\Debug\LoopProblems1-2.exe
Enter a positive number or 0 to exit: 10
Enter a positive number or 0 to exit: 25
Enter a positive number or 0 to exit: 15
Enter a positive number or 0 to exit: 14
Enter a positive number or 0 to exit: 0
The average age is 16
```

3. Write a program that reads in a value **number** and then prints its digits in a column, starting with the last digit, e.g., if **number** = 3456, then the program should print the following:

6  
5  
4  
3



```
C:\DMIT_New\CPSC1012\Lessons\04_Loops\LoopProblems1-3\bin\Debug\LoopProblems1-3.exe
Enter the value of a number: 78412
2
1
4
8
7
```