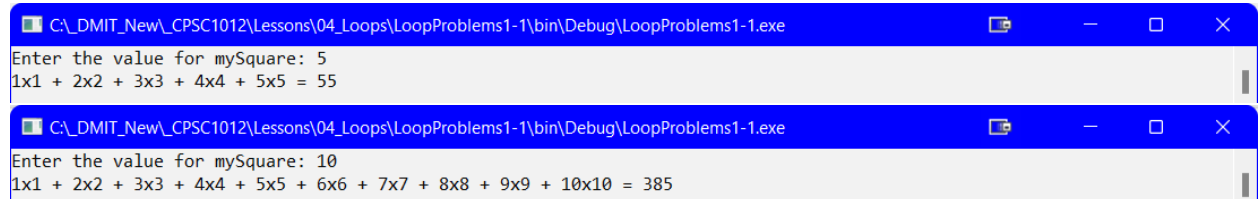


Loop Problems 1

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 $1x1 + 2x2 + 3x3 + 4x4 = 30$.

Sample output:

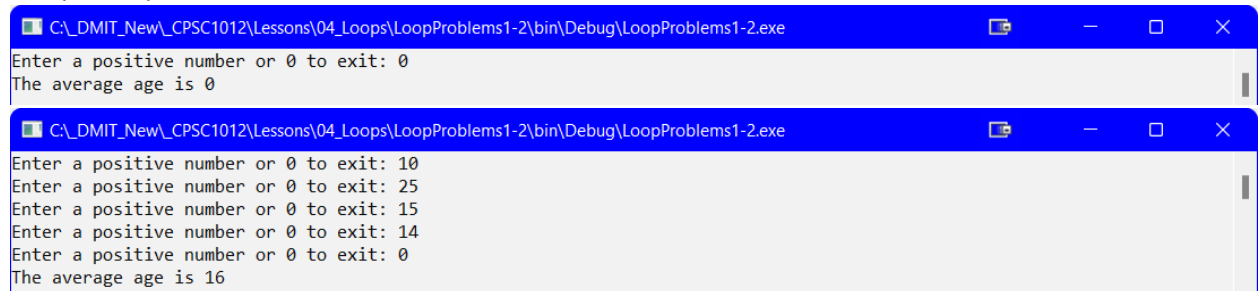


```
C:\_DMIT_New_CPSC1012\Lessons\04_Loops\LoopProblems1-1\bin\Debug\LoopProblems1-1.exe
Enter the value for mySquare: 5
1x1 + 2x2 + 3x3 + 4x4 + 5x5 = 55

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.

Sample output:



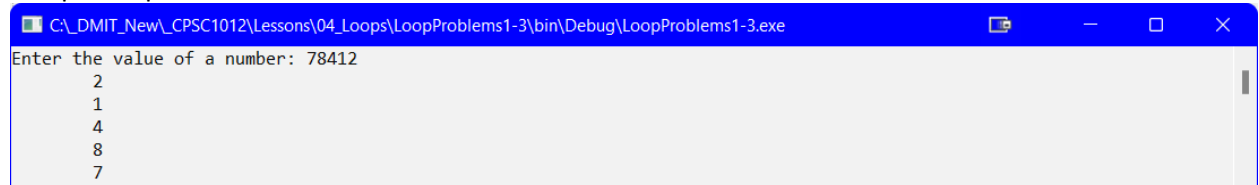
```
C:\_DMIT_New_CPSC1012\Lessons\04_Loops\LoopProblems1-2\bin\Debug\LoopProblems1-2.exe
Enter a positive number or 0 to exit: 0
The average age is 0

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
```

Sample output:



```
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
```