Northeastern Illinois University
CS 200: Programming I
Professor Yehuda Gutstein
Homework

Please zip all HW files, including source files (.java) and results (.txt) for this week in ONE folder and submit on D2L.

HW is due prior to the start of the next class.

At the beginning of each .java file, please include (in comments):
//CS200
//(insert here: Semester, Year)
//Student Name
//Instructor: Y. Gutstein
//HW #x: (Name of HW)
//Due: (insert due date here)
//File name: (Insert FileName).java

HW #1: For Loops

Write a program that asks the user for a number greater than 1. Your program should sum the numbers from 1 to the number entered and print out the resulting sum. Sample output is provided for you.

```
Enter a number greater than 1: 2
The sum is 3
```

```
Enter a number greater than 1: 6
The sum is 21
```

HW #2: While Loops

Write a program that asks a user to enter scores (0 - 100) for an exam. The program should prompt the user to enter -1 to stop entering scores. The program should calculate the average of the scores entered. See the sample output below.

```
Enter a score between 0 and 100 or -1 to exit: 87.3
Enter a score between 0 and 100 or -1 to exit: 77
Enter a score between 0 and 100 or -1 to exit: 92.1
Enter a score between 0 and 100 or -1 to exit: -1
The average is 85.46666666666665
```

```
Enter a score between 0 and 100 or -1 to exit: 80
Enter a score between 0 and 100 or -1 to exit: 70
Enter a score between 0 and 100 or -1 to exit: -1
The average is 75.0
```

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HW #3: Loops

Create a .java file named SmallestN.java.
Write a program that asks the user to input a number larger than 10.
The program should then determine the smallest value for n that when multiplied by itself is greater than the value the user entered.
See the sample output provided below.

Sample Output:

```
Enter a number larger than 10: 20
The smallest value for n that gives n * n > 20 is 5
```

```
Enter a number larger than 10: 25
The smallest value for n that gives n * n > 25 is 6
```

HW #4: Loops

Create a .java file named DivisibleLines.java.
Write a program that prompts the user to enter a number larger than 20.
The program should then display all the numbers from 2 to the number entered that are divisible by 2 or 3, but not both.
There should only be 10 numbers per line.
Numbers should be separated by a space.

Sample Output:

```
Enter a number larger than 20: 22
2 3 4 8 9 10 14 15 16 20
21 22
```

```
Enter a number larger than 20: 50
2 3 4 8 9 10 14 15 16 20
21 22 26 27 28 32 33 34 38 39
40 44 45 46 50
```