

CS-200: Programming I  
Fall 2017  
Northeastern Illinois University  
PLTL: Week of 10/03/17  
Looping/Methods

**Problem #1**

- Write a program that has the class name Problem1 and that has the main method.
- Prompt the user to enter 10 integers and print out the largest difference and smallest difference obtained by subtracting an integer from the one following it.
- Depending upon the largest and smallest difference obtained, print out the message accordingly.
- Several sample runs are provided for you below. Your output must be formatted **exactly** like the sample runs below.

```
Enter an integer: 2
Enter an integer: 8
Enter an integer: 17
Enter an integer: 25
Enter an integer: 90
Enter an integer: 45
Enter an integer: 50
Enter an integer: 32
Enter an integer: 09
Enter an integer: 64
Largest difference: 65
Smallest difference: -45
```

```
Enter an integer: -5
Enter an integer: 8
Enter an integer: -37
Enter an integer: 64
Enter an integer: 2
Enter an integer: -21
Enter an integer: 0
Enter an integer: 99
Enter an integer: 41
Enter an integer: -9
Largest difference: 101
Smallest difference: -62
```

```
Enter an integer: 77
Enter an integer: 51
Enter an integer: 34
Enter an integer: 65
Enter an integer: 89
Enter an integer: 56
Enter an integer: -33
Enter an integer: -6
Enter an integer: 7
Enter an integer: 27
Largest difference: 31
Smallest difference: -89
```

**Problem #2**

- Write a program that has the class name Problem2 and that has the main method. Leave the main method empty for now.
- Write a method named allDigitsOdd that takes one parameter, an integer n and returns a boolean.
- Determine whether every digit of the parameter n is odd. Your method should return true if the number consists entirely of odd digits and false if any of its digits are even. 0, 2, 4, 6 and 8 are even digits, and 1, 3, 5, 7, 9 are odd digits.
- Hint: You can pull apart a number using \10 and % 10.
- Several sample usages are provided for you below. Use the sample usages in the main method to test your code.

Sample Method Usage	Return Value
<code>allDigitsOdd(73925)</code>	<code>false</code>
<code>allDigitsOdd(59175)</code>	<code>true</code>
<code>allDigitsOdd(530)</code>	<code>false</code>
<code>allDigitsOdd(31)</code>	<code>true</code>