



**CSE 215L: Programming language II Lab**  
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**Sec: 02**  
**Lab - 04 [Control Statements], Spring-2021**  
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**Objective:**

- To learn to use Conditional Statements
- To learn about different types of loops (for, while)
- To learn about two keywords such as break, continue and their usages

<b><i>if-else</i></b>	<b><i>switch</i></b>
<pre>If (condition) {     // do something } else {     // do something else }</pre>	<pre>switch (case) {     case 1:         // do things for case 1         break;     case 2:         // do things for case 2         break;     default:         // do things for default case }</pre>
<b><i>for</i></b>	<b><i>while</i></b>
<pre>for(int i = 0; i &lt; 10; i++){     // do something }</pre>	<pre>while(condition){     // do something }</pre>

**Tasks:**

1. Write a program that takes an integer and determines if it's odd or even. Use switch cases to produce results.
2. Write a program that takes an integer and determines if it's prime or not. A number is prime if it is divisible by 1 and itself only, i.e. 2, 3, 11, 37, etc.

3. Write a program using for loop which prints the summation of the following series:

$$\frac{1}{1^2} - \frac{1}{2^2} + \frac{1}{3^2} - \frac{1}{4^2} + \dots + \frac{1}{n^2}$$

where the integer n will be input to your program.

**Sample Input / Output**

Enter n : 5  
Sum : 0.84

4. Write a Java code that will print a pyramid of numbers like below. The number of rows N in the pyramid will be input to your program. Assume  $N \leq 9$ .

**Sample Input/Output:**

Enter N: 7

1  
12  
123  
1234  
12345  
123456  
1234567