

L04 - Iteration Lab - Part 2 -

The Three Loops

Enter the following program and fill in the missing pieces so that the three different styles of loops compute the sum of numbers.

```
public class Loops {  
    public static void main(String[] args) {  
        //sum the numbers from 1 to 5 using a for loop  
        int sum = _____;  
        for(_____;_____;_____) {  
            sum = sum + i;  
        }  
        System.out.println("The sum of the numbers from 1 to 5 is " + sum);  
  
        //sum the numbers from 1 to 10 using a while loop  
        sum = 0;  
        int i = 0;  
        while (_____) {  
            i = _____;  
            sum = sum + i;  
        }  
        System.out.println("The sum of the numbers from 1 to 10 is " + sum);  
  
        //sum the numbers from 1 to 15 using a do...while loop  
        sum = 0;  
        i = 0;  
        do {  
            i = _____;  
            sum = sum + i;  
        } while (_____) ;  
        System.out.println("The sum of the numbers from 1 to 15 is " + sum);  
    }  
}
```

You can check your results by using the formula $1 + 2 + \dots + n = n(n+1)/2$

Sample Output

The sum of the numbers from 1 to 5 is 15

The sum of the numbers from 1 to 10 is 55

The sum of the numbers from 1 to 15 is 120

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