# COS 463 ASSIGNMENT

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## DEPARTMENT: COMPUTER SCIENCE

Assignment Part 1

(1) Write a java method to multiply 3 numbers and return the product

**Solution**

**Code**

```
public class Product {

   // Method to find the product of three double inputs
   public double productOfThreeNumbers(double num1, double num2, double num3) {
      return num1 * num2 * num3;
   }

   public static void main(String[] args) {
      // Create an object of the class Product
      Product obj = new Product();

      // Declare and initialise the three numbers
      double num1 = 2.0, num2 = 3.0, num3 = 6.9;

      // Call the method and store the result
      double result = obj.productOfThreeNumbers(num1, num2, num3);

      // Print the result along with the three numbers, formatted to two decimal places
        System.out.println("The product of the numbers " + num1 + ", " + num2 + ", " + num3 + " is: " +
String.format("%.2f", result));
   }
}
```

**Output**

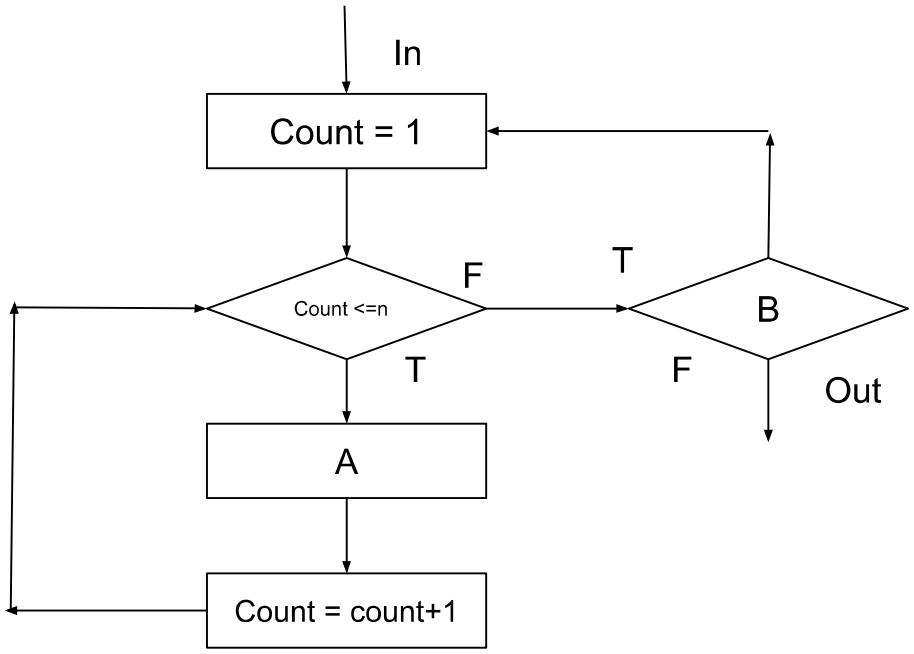
The product of the numbers 2.0, 3.0, 6.9 is: 41.40

Assignment Part 2

(1). Represent the following program segment using a flow control diagram (flowchart)

```
do
{
        For (int count = 1; count <= n; count++)
        {
A;
        }
} while (B)
```

**Solution**



(2) Represent the same program segment using Nassi Sheidermann model

**Solution**

There is no direct Nassi-Sheidermann model for ‘for’ statement, we can rewrite the ‘for’ statement as the ‘while’ statement as follows:

**From**

```
For (int count = 1; count <= n; count++)
{
        A;
}
```

**To**

```
int count = 1;
while (count <= n)
{
        A;
        count = count +1
}
```