INTRODUCTION TO JAVA:

1) **PROGRAM:**

```
public class sample {

   public static void main(String[] args) {
      int a = 30;
      int b = 10;
      int c = 15;
      int d = 20;

      int ab = a + b;
      int cd = c + d;
      if(ab > cd){

         System.out.println(true);
         System.out.println("The sum of a + b = " + ab  + " is greater than sum of c + d = " + cd );
      }

      else{
         System.out.println(false);
      }

   }
}
```

OUTPUT:

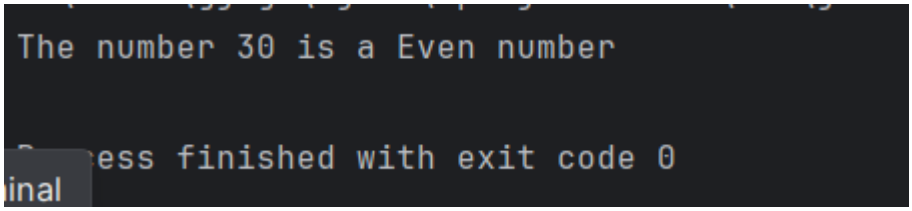
```
true
The sum of a + b = 40 is greater than sum of c + d = 35
```

2) **PROGRAM:**

```
public class sample {

   public static void main(String[] args) {
      int a = 30;

      if(a % 2 == 0){

         System.out.println("The number " + 30 + " is a Even number");
      }

      else{
```

```
            System.out.println("Not a even number");
        }
    }
}
```

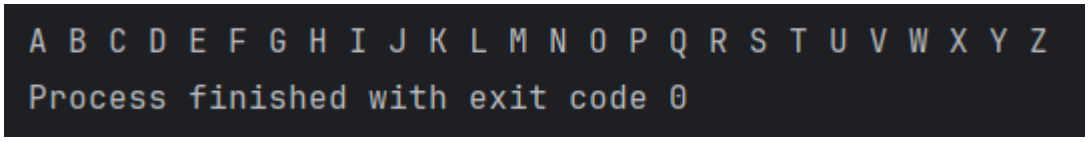
OUTPUT:



3) PROGRAM:

```
public class sample {

    public static void main(String[] args) {

        for(char i = 'A'; i <='Z'; i++){
            System.out.print(i + " ");
        }
    }
}
```

OUTPUT:



4) PROGRAM:

```
import java.util.Scanner;
public class sample {

    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter number [a] = ");
        int a = sc.nextInt();
        System.out.println("Enter number [b] = ");
        int b = sc.nextInt();



        System.out.println("Before swapping: a = " + a);
        System.out.println("Before swapping: b = " + b);
```

```
        System.out.println("------------------------------");

        int temp = a;
        a = b;
        b = temp;

        System.out.println("After swapping: a = " + a);
        System.out.println("After swapping: b = " + b);
    }
}
```

OUTPUT:

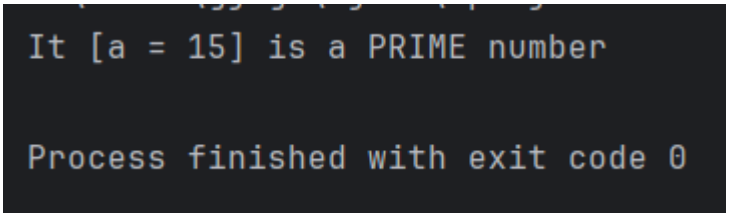
```
Enter number [a] =
5
Enter number [b] =
10
Before swapping: a = 5
Before swapping: b = 10
------------------------------
After swapping: a = 10
After swapping: b = 5

Process finished with exit code 0
```

5) PROGRAM:

```
public class sample {

    public static void main(String[] args) {

        int a = 15;

        if(a % 1 == 0 && a % a == 0) {

            System.out.println("It [a = 15] is a PRIME number");
        }

        else{

            System.out.println("Not a PRIME number");
```

```
    }

  }
}
```

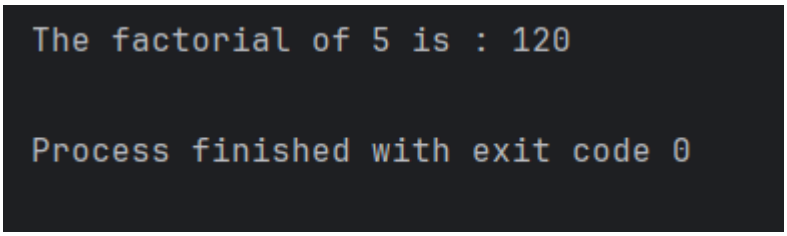
OUTPUT:



6) PROGRAM:

```
public class sample {

  public static void main(String[] args) {

    int n = 5;
    int fact = 1;

    for(int i=1;i<=n;i++){
      fact = fact * i;
    }

     System.out.println("The factorial of " + n + " is : " + fact);
  }
}
```

OUTPUT:

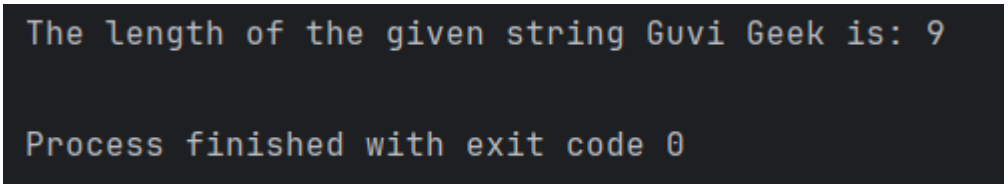


7) PROGRAM:

```
public class sample {

public static void main(String[] args) {

String str = "Guvi Geek";
```

```
int length =0;
for(char c : str.toCharArray()){
length++;
}
System.out.println("The length of the given string " + str + " is: " + length);

}
}
```

OUTPUT:



8) PROGRAM:

```
public class sample {

   public static void main(String[] args) {

     String str = "Welcome to Guvi";

     for(int i = 1; i <= 10; i++){

        System.out.println(str);
     }
   }
}
```

OUTPUT:

```
Welcome to Guvi
Welcome to Guvi
Welcome to Guvi
Welcome to Guvi
Welcome to Guvi
Welcome to Guvi
Welcome to Guvi
Welcome to Guvi
Welcome to Guvi
Welcome to Guvi

Process finished with exit code 0
```

9) PROGRAM:

```
public class sample {

   public static void main(String[] args) {

      String name = "JEGAN";
      int age = 22;

      if(age >= 18){

         System.out.println(name + " is a Senior Citizen");
      }
      else{
         System.out.println(name + " is not a Senior Citizen");
      }
   }
}
```

OUTPUT:

```
JEGAN is a Senior Citizen

Process finished with exit code 0
```

10) PROGRAM:

```
public class sample {

   public static void main(String[] args) {

      int number = 123;
      int count = 0;
      int temp = number;
      if (temp == 0) {
         count = 1;
      } else {
         while (temp > 0) {
            temp = temp / 10;
            count++;
         }
      }

      System.out.println("The number of digits in " + number + " is: " + count);
   }
}
```

OUTPUT: