Course: JAVA **Session:** Data types and Operators **Timestamp:** 2021-8-31 10:11:49 **Register Number:** RA2031241010094

Q. Type Casting problem

Get an integer as input and convert it to float via long data type.

Output Values:

1. Integer type
2. Long Type
3. Float Data type

Source Code

```
import java.util.*;
public class TestClass {
  public static void main(String[] args) {
      Scanner sc=new Scanner(System.in);
      int a=sc.nextInt();
      long b=a;
      float c=a;
      System.out.println("Int value "+a);
      System.out.println("Long value "+b);
      System.out.println("Float value "+c);

 }
}
```

Sample Input

5212

Sample Output

Int value 5212
Long value 5212
Float value 5212.0

Result

Thus, Program " **Type Casting problem** " has been successfully executed

Course: JAVA **Session:** Data types and Operators **Timestamp:** 2021-8-31 10:12:38 **Register Number:** RA2031241010094

Q. Date

Write a Java program to convert minutes into a number of years and days.
Test Data
Input the number of minutes: 3456789
Expected Output :
3456789 minutes is approximately 6 years and 210 days
Input:
3456789
output:
6
210

Source Code

```
import java.util.*;
public class TestClass {
  public static void main(String[] args) {
       Scanner sc=new Scanner(System.in);
       int a=sc.nextInt();
       int b=a/525600;
       int c=(a%525600)/1440;
       System.out.println(b);
       System.out.println(c);

  }
}
```

Sample Input

3456789

Sample Output

6
210

Result

Thus, Program " **Date** " has been successfully executed

Course: JAVA **Session:** Data types and Operators **Timestamp:** 2021-8-31 10:12:59 **Register Number:** RA2031241010094

Q. Even or Odd using division '/' operator

Program to check number is even or odd by using division "/" operator

Source Code

```
import java.util.*;
public class TestClass {
  public static void main(String[] args) {
       Scanner sc=new Scanner(System.in);
       int a=sc.nextInt();
       if((a/2)*2==a)
         System.out.println("Even");
       else
         System.out.println("Odd");

 }
}
```

Sample Input

46

Sample Output

Even

Result

Thus, Program " **Even or Odd using division '/' operator** " has been successfully executed

Course: JAVA **Session:** Data types and Operators **Timestamp:** 2021-8-31 10:13:18 **Register Number:** RA2031241010094

Q. Binary sum

Write a Java program to add two binary numbers.

Source Code

```
import java.io.*;
import java.util.*;
public class TestClass {
  public static void main(String[] args) {
  Scanner sc=new Scanner(System.in);
       String s1=sc.next();
       String s2=sc.next();
       int a=Integer.parseInt(s1,2);
       int b=Integer.parseInt(s2,2);
       System.out.println(Integer.toBinaryString(a+b));
 }
}
```

Sample Input

```
10
11
```

Sample Output

```
101
```

Result

Thus, Program " **Binary sum** " has been successfully executed

Course: JAVA **Session:** Data types and Operators **Timestamp:** 2021-8-31 10:13:38 **Register Number:** RA2031241010094

Q. conversion from double to float

Java Program to convert from double to float

Source Code

```
import java.util.*;
public class TestClass {
  public static void main(String[] args) {
       Scanner sc=new Scanner(System.in);
       double a=sc.nextDouble();
       float b=(float)a;
       System.out.println(b);

 }
}
```

Sample Input

12.123456789

Sample Output

12.123457

Result

Thus, Program " **conversion from double to float** " has been successfully executed

Course: JAVA **Session:** Data types and Operators **Timestamp:** 2021-8-31 10:14:14 **Register Number:** RA2031241010094

Q. Conversion from Octal to hexadecimal

Java Program to convert from octal to hexadecimal number

Source Code

```
import java.util.*;
public class TestClass {
  public static void main(String[] args) {
       Scanner sc=new Scanner(System.in);
       String oct,dec;
       int decnum;
       oct=sc.next();
       decnum=Integer.parseInt(oct,8);
       dec=Integer.toHexString(decnum);
       System.out.println(dec);


 }
}
```

Sample Input

15

Sample Output

d

Result

Thus, Program " **Conversion from Octal to hexadecimal** " has been successfully executed

Course: JAVA **Session:** Data types and Operators **Timestamp:** 2021-8-31 10:14:54 **Register Number:** RA2031241010094

Q. Strong Number

Java Program to check for strong number

Sample Input:
Input : n = 145
Output : Yes
Sum of digit factorials = 1! + 4! + 5!
= 1 + 24 + 120
= 145

Source Code

```
import java.util.*;
public class TestClass {
  public static void main(String[] args) {
      Scanner sc=new Scanner(System.in);
      int n=sc.nextInt();
      int tot=0;
      int m=n;
      while(n!=0)
      {
        int i=1;
        int fact=1;
        int l=n%10;
        while(i<=l)
        {
          fact=fact*i;
          i++;
        }
        tot=tot+fact;
        n=n/10;
      }
      if(tot==m)
        System.out.println("Yes");
      else
        System.out.println("No");

 }
}
```

Sample Input

10

Sample Output

No

Result

Thus, Program " **Strong Number** " has been successfully executed

Course: JAVA **Session:** Data types and Operators **Timestamp:** 2021-8-31 10:15:16 **Register Number:** RA2031241010094

Q. Menu driven calculator

Menu driven calculator

The menu options are as follows:

1. Addition
2. Subtraction
3. Division
4. Multiplication
5. Modulo

The menu driven is followed by number of inputs

Source Code

```
import java.util.*;
public class TestClass {
  public static void main(String[] args) {
  Scanner sc=new Scanner(System.in);
      int ch=sc.nextInt();
      int a=sc.nextInt();
      int b=sc.nextInt();
      switch(ch)
      {
        case 1:
          System.out.println(a+b);
          break;
        case 2:
          System.out.println(a-b);
          break;
        case 3:
          System.out.println(a/b);
          break;
        case 4:
          System.out.println(a*b);
          break;
        case 5:
          System.out.println(a%b);
          break;
        default:
          System.out.println("Invalid choice");
      }
 }
}
```

Sample Input

```
1
12
25
```

Sample Output

```
37
```

Result

Thus, Program " **Menu driven calculator** " has been successfully executed