**Welcome To Java**

```
import java.io.*;
import java.util.*;

public class Main
{
 public static void main(String[] args)
 {
   System.out.println("Hello, World.");
   System.out.println("Hello, Java.");
 }
}
```

**Five Star**

```
public class Main {
 public static void main(String args[]){
   // your code here
   System.out.println("* * * * *");
   System.out.println("*");
   System.out.println("*");
   System.out.println("*");
   System.out.println("*");
   System.out.println("*");
 }
}
```

**Input  Output in Java**

```
import java.io.*;
import java.util.*;

public class Main
{
        public static void main (String args[])
        {
                Scanner sc = new Scanner(System.in);
    int a = sc.nextInt();
    int b = sc.nextInt();
    int c = sc.nextInt();

    System.out.println(a);
    System.out.println(b);
    System.out.println(c);
        }
}
```

**Celsius to Fahrenheit**

```
import java.util.*;
import java.io.*;

public class Main {
        public static void main (String args[]) {
        Scanner sc= new Scanner(System.in);
   int temperature=sc.nextInt();
   int fahreheit= (temperature*9)/5 +32;
  //   fahreheit=fahreheit/5;
  // fahreheit=fahreheit+32;
  System.out.println(fahreheit);
  }
}
```

**Star Pattern**

```
import java.util.*;
import java.io.*;

public class Main{
        public static void main(String args[]) {
    //your code here
    System.out.println("*");

    System.out.println("***");

    System.out.println("*****");
        }
}
```

**Number of Days**

```
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
        public static void main (String[] args) throws java.lang.Exception
        {
         Scanner sc= new Scanner(System.in);
    int m=sc.nextInt();
    //31days-1,3,5,7,8,10,12
    //28days-2
    //30days-4,6,9,11
    if(m==2)
    {
     System.out.print(28);
    }
    else if(m==4 || m==6 || m==9||m==11 )
    {
     System.out.print(30);
    }
    else
    {
     System.out.print(31);
    }
        }
}
```

**Leap Year**

```
import java.util.Scanner;

public class Main
{
            public static void main (String[] args) {

       Scanner sc = new Scanner(System.in);
       int  year = sc.nextInt();
       int is_leap = 0;

       if( year%4 == 0 )
       {
         if( year%100==0 && year%400!=0 )
         {
            is_leap = 0;
         }
         else
            is_leap = 1;
       }
       else
            is_leap = 0;
     System.out.println(is_leap);
       }
}
```

**Stopwatch**

```
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
        public static void main (String[] args) throws java.lang.Exception
        {
                //your code here
    Scanner sc=new Scanner(System.in);
    int n=sc.nextInt();
    int total_time=0;
    int watch_running=0;
    int current_time=0;
    int previous_time=0;

    for(int i=0;i<n;i++)
     {
       previous_time=current_time;
       current_time=sc.nextInt();
       if(watch_running!=0)
       {

         total_time+=(current_time-previous_time);
         watch_running=0;
       }
       else
       {
         watch_running=1;
       }
     }
     if(watch_running==1)
     {
       System.out.println("still running");
     }
     else
     {
       System.out.println(total_time);
     }
        }
}
```

**Water Bill**

```
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
        public static void main (String[] args) throws java.lang.Exception
        {
                Scanner sc= new Scanner(System.in);
    int water = sc.nextInt();
    int cost = 0;
    if(water>100)
    {
     cost=cost+(15*100);
     water=water-100;
     if(water>100)
    {
     cost=cost+(14*100);
     water=water-100;
     cost=cost+(water*12);
    }
    else
     {
      cost=cost+(14*water);
     }
    }
    else
     {
      cost=cost+(15*water);
     }
     System.out.println(cost);
        }
}
```

**Which Angled Triangle**

```
import java.util.*;
import java.io.*;

public class Main {
        public static void main (String args[])
 {
   Scanner sc=new Scanner(System.in);
   int a = sc.nextInt();
   int b = sc.nextInt();
   int c = sc.nextInt();
    int big=a;
      if(big<b)
        big=b;
      if(big<c)
        big=c;

     if(2*big*big < (a*a+b*b+c*c))
       {
       System.out.println("1");
       }
     else if (2*c*c == (a*a+b*b+c*c)||2*a*a == (b*b+c*c+a*a)||2*b*b == (a*a+c*c+b*b))
     {
       System.out.println("2");
   }
  else
   {
     System.out.println("3");
   }
 }
}
```

**A Contest**

```
import java.io.*;
import java.util.*;
public class Main {
            public static void main(String args[]) {
              Scanner sc = new Scanner(System.in);
     int n = sc.nextInt();
     int k = sc.nextInt();
     int [] arr = new int[n];
     for(int i=0; i<n;i++){
       arr[i] = sc.nextInt();
     }
     int total=0;
     int par_score=arr[k-1];
     for(int i=0;i<n;i++)
      {
        if(par_score<=arr[i])
        {
          total++;//total = total +1;
        }
      }
     System.out.println(total);
           }
}
```

**Array Rotation**

```
import java.util.*;
import java.lang.*;
import java.io.*;
//k=2
//3 - 0,1,2
// 3 4 5
// 0 1 2
// 2 3
// 5 3 4 k=1
// 4 5 3 k=2
// 3 4 5 k=3
// 5 3 4 k=4
public class Main
{
            public static void main (String[] args) throws java.lang.Exception
            {
             Scanner sc= new Scanner (System.in);
    int n= sc.nextInt();
    int rot= sc.nextInt();
    int queries= sc.nextInt();
    // rot=rot%n;
    int[] arr=new int[n];
    for(int i=0;i<n;i++)
     {
       arr[i] = sc.nextInt();
     }
    int [] new_arr = new int[n];
    for(int i=0;i<n;i++)
     {
       new_arr[(i+rot)%n] = arr[i];
     }
    for(int i=0;i<queries;i++)
     {
       int index = sc.nextInt();
       System.out.println(new_arr[index]);
     }


}


}
```

**Divisible Sum Pairs**

```
import java.io.*;
import java.util.*;
public class Main {
            public static void main (String args[]) {
    Scanner sc = new Scanner(System.in);
             int n =sc.nextInt();
             int k =sc.nextInt();
    int[] arr = new int[n];
    for(int i=0;i<n;i++)
     {
       arr[i] = sc.nextInt();
     }
    int total_pairs=0;
    for(int i=0;i<n;i++)//first element of the pair
     {
       for(int j=i+1;j<n;j++)
       {
        int pair_sum = arr[i] + arr[j];
         if((pair_sum)%k==0)
        {

         total_pairs++;
        }
       }
      }
     System.out.println(total_pairs);
   }
}
```

**Pairs**

```
import java.util.HashSet;
import java.util.*;
// 5 2
// 1 5 3 4 2
// 1- (1,5),(1,3),(1,4),(1,2)
// 5- (5,1),(5,3),(5,4),(5,2)
public class Main
{
            public static void main (String args[])
            {
     Scanner sc=new Scanner(System.in);
     int n=sc.nextInt();
     int k= sc.nextInt();
     int[] arr=new int[n];
     for(int i=0;i<n;i++)
      {
        arr[i] = sc.nextInt();
      }
      int total_pairs=0;
      for(int i=0;i<n;i++)//i-first element in the pair
        {
          for(int j=i+1;j<n;j++)//
          {
           if(arr[i]-arr[j]==k || arr[j]-arr[i]==k)
           {
            total_pairs++;//total_pairs=total_pairs+1
           }
          }
         }
         System.out.println(total_pairs);//(1,3),(5,3),(4,2)
           }

}
```

**Armstrong Number Finder**

```
import java.util.*;
import java.io.*;

public class Main {
        public static void main (String args[]) {
                //your code here
    Scanner sc = new Scanner(System.in);
    int N = sc.nextInt();
    int originalN = N;
    int sum = 0;
    while(N>0){
     int digit = N%10;
     sum += digit*digit*digit;
     N /= 10;
    }
    if(originalN == sum) {
     System.out.println(1);
    }
    else {
     System.out.println(0);
    }
        }
}
```

**Factorial with loop**

```
import java.util.*;
import java.lang.*;
import java.io.*;
//1*2*3*4*5
public class Main
{
        public static void main (String[] args) throws java.lang.Exception
        {
                Scanner sc= new Scanner(System.in);
    int n= sc.nextInt();
    long fact =1;
    for(int i=1;i<=n;i++)
     {
       fact=fact*(long)i;
     }
    System.out.println(fact);
        }
}
```

**Java Staircase**

```
import java.util.*;
import java.io.*;
// ' '  '#'
// 3    1. =4
// 2.   2   =4
// 1    3.   =4
// 0    4.     =4
public class Main
{
    public static void main (String args[]) {
            Scanner sc= new Scanner(System.in);
    int n =sc.nextInt();
    int spaces = n-1;
    int hashes =1;
    for(int i=0;i<n;i++)
    {
     for(int j=0;j<spaces;j++)
     {
      System.out.print(" ");
       }
     for(int j=0;j<hashes;j++)
     {
      System.out.print("#");
     }
     System.out.println();
     spaces=spaces-1;
     hashes=hashes+1;
    }

     }

}
```

**Last two digit Fibonacci**

```
import java.util.*;
import java.lang.*;
import java.io.*;
//0 1 1 2 3 5 8 13 21
public class Main
{
            public static void main (String[] args)
            {
             Scanner sc=new Scanner(System.in);
    long n=sc.nextLong();
    long a=0;
    long b=1;
    long f=0;
    if(n<2)
    {
     System.out.print("0"+n);
    }
    else
    {
     for(int i=2;i<=n;i++){
      f=a+b ;
      a=b;
      b=f;
     }
     //128479124
     f=f%100;
     if(f<10)
     {
      System.out.print("0"+f);
     }
     else
     {
      System.out.print(f);
     }
    }
            }
}
```

**Palindrome Number**

```
import java.util.*;
import java.io.*;
public class Main {
public static void main (String args[])
        {
                Scanner sc= new Scanner(System.in);
    int n= sc.nextInt();
    int ActualNumber=n;
    int ReverseNumber=0;

    while(n>0)
     {
       int Digit = n%10;
       n = n/10;
       ReverseNumber= ReverseNumber*10+Digit;
     }

     if (ReverseNumber==ActualNumber)
     { System.out.println("true"); }

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

**Second Largest Integer**

```
import java.util.*;
import java.lang.*;
import java.io.*;
// i^2 + 2+i + 1 -3*i -1 +i
// i^2
public class Main
{
            public static void main (String args[])
            {
   Scanner sc = new Scanner(System.in);
   //int[] arr=new int[5];
   // int max_ele = arr[0];
   // int min_ele = arr[0];
   // for(int i=0;i<5;i++)
   // {
   // arr[i] = sc.nextInt();

   //  if(arr[i]>max_ele)
   //   max_ele = arr[i];

   //  if(arr[i]<min_ele)
   //    min_ele = arr[i];
   // }
   // int second_max= min_ele;
   //for(int i=0;i<5;i++)
   // {
          // if(second_max<arr[i] && arr[i]!=max_ele)
   //   second_max=arr[i];
   // }
   int max_ele=0;
   int second_max=0;
   for(int i=0;i<5;i++)
    {
      int ele=sc.nextInt();
      if(ele>max_ele)
      {
        second_max=max_ele;
        max_ele =ele;
      }
      else if(second_max<ele)
      {
        second_max=ele;
      }
    }
    System.out.println(second_max);
  }
}
```

**Sigma of Equation**

```
import java.util.*;
import java.lang.*;
import java.io.*;
// i^2 + 2*i + 1 -3*i -1 +i
public class Main
{
        public static void main (String[] args) throws java.lang.Exception
        {
         Scanner sc = new Scanner(System.in);
    long n = sc.nextLong();
    long sum = 0;
    for(long i=1; i<=n;i++)
     {
       sum = sum + ( ((i+1)*(i+1)) - (3*i + 1) + i);
     }
    System.out.println(sum);
        }
}
```

**Sum of Natural Numbers**

```
import java.util.*;
import java.io.*;
public class Main
{
        public static void main (String args[])
        {
    Scanner sc = new Scanner(System.in);
    int n= sc.nextInt();
    int sum= (n*(n+1))/2;
    // for(int i=1;i<n;i++)
    // {
    //  sum+=i;
    //   //sum= sum+i;
    //  }
     System.out.println(sum);
         }
}
```

**Contains Duplicate**

```
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
        public static void main (String[] args) throws java.lang.Exception
        {
                Scanner sc= new Scanner(System.in);
    int n = sc.nextInt();
    int[] arr=new int[n];
    boolean duplicate=false;
    for(int i=0;i<n;i++)
     {
       arr[i]=sc.nextInt();
     }
    for(int i=0;i<n;i++)
     {
       int frequency=0;
       for(int j=0;j<n;j++)
        {
          if(arr[i]==arr[j])
          {
            frequency++;
          }
        }
         if(frequency>1)
           duplicate=true;
       }
    System.out.println(duplicate);
     }
}
```

**Largest Number At Least Twice of Others**

```
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
            public static void main (String[] args) throws java.lang.Exception
            {
                        Scanner sc= new Scanner(System.in);
       int n=sc.nextInt();
       int[] arr=new int[n];
      int max_ele=0;
      int max_ele_index=0;
       for(int i=0;i<n;i++)
        {
          arr[i] = sc.nextInt();
          if(max_ele<arr[i])
          {
            max_ele=arr[i];
            max_ele_index=i;
          }
        }
        boolean twice=true;
      for(int i=0;i<n;i++)
       {
         if(max_ele!=arr[i])
         {
           if(2*arr[i]>max_ele)
           {
             max_ele_index=-1;
           }
         }
       }
       System.out.print(max_ele_index);
            }
}
```