Exercises
Exercise 1: Write a test case to check if the entered number is even.

```
package testingjunit1;

import static org.junit.Assert.assertTrue;

import org.junit.Test;
public class MyAssertTrueTest
{
   public boolean isEvenNumber(int number)
   {
      boolean result = false;
      if(number%2==0)
      {
         result = true;
      }
      return result;
   }

   @Test
   public void evennumberTest()
   {
      MyAssertTrueTest asft = new MyAssertTrueTest();
      assertTrue(asft.isEvenNumber(10));
   }
}

//  If assertEquals(5,o,1e-15)
```

Date: 18-04-22
Excercise 2:Write a java test to check square of a number and to check the number of a's in the given word.

```
package test;

public class JunitTest
{
  public int square(int x)
  {
     return x*x;
  }
  public int countA(String w)
  {
```

```
    int c=0;
    for(int i=0;i<w.length();i++)
    {
        if(w.charAt(i)=='a' || w.charAt(i)=='A')
            c++;
    }
    return c;
 }
}
```

```
package test;
import static org.junit.jupiter.api.Assertions.*;

import java.util.Scanner;
import org.junit.Test;

class squareTest
{
   @Test
   void test()
   {
      JunitTest t = new JunitTest();
                  Scanner sc = new Scanner(System.in);
                  System.out.println(“Enter any Number: “);
                   int n = sc.nextInt();
      int o = t.square(n);
      assertEquals(24,o);
                  sc.close();
   }
}
```

```
package test;

import static org.junit.jupiter.api.Assertions.*;

public class countTest
{
   @Test
   void testCount()
   {
      JunitTest a = new JunitTest();
      int count=a.countA("chaitali");
      assertEquals(2,count);
```

```
   }
}
```

```
* * * * ** * *----------------------------------------
 – – – –  – –
```

Date:23-04-22
Excercise 3: To test prime number program using assert true .

```
public class PrimeTest
{
   boolean primenum(int n)
   {
      boolean flag=true;
      int m=n/2;

      if(n==0||n==1)
      {
         flag=false;
      }

      else
      {
         for(int i=2;i<=m;i++)
         {
            if(n%1==0)
            {
               flag=false;
               break;
            }
         }

      }
      return flag;
   }
}
```

—----------

```
//Test
import static org.junit.jupiter.api.Assertions.*;
```

```
import org.junit.jupiter.api.Test;

public class JunitTest1
{
   @Test
   void TestPrime()
   {
      PrimeTest prm = new PrimeTest();
      assertTrue(prm.primenum(2));
   }
}
```

DATE: 25-04-22
Excercise 4: Write a junit test to check if the number is posotive.

```
public class PN
{
   boolean Method(int n)
   {
      if(n>0)
      {
         return true;
      }
      else
      {
         return false;
      }
   }
}
```

—----------

```
import static org.junit.jupiter.api.Assertions.*;

import org.junit.jupiter.api.Test;

public class JunitTest2
{
   @Test
   void Test()
```

```
    {
        PN obj = new PN();
        assertFalse(obj.Method(-3));
    }
}
```

Excercise 5: Write a junit test for perfect square of a number

```
import java.lang.*;
public class Psquare
{
    boolean PerSqr(int n)
    {
        if(n>=0)
        {
            int sr = (int)Math.sqrt(n);
            return((sr*sr)==n);
        }
        return false;
    }
}
```

—----------

```
import static org.junit.jupiter.api.Assertions.*;

import org.junit.jupiter.api.Test;

public class JunitTest3
{
    @Test
    void Test()
    {
        Psquare obj = new Psquare();
        assertTrue(obj.PerSqr(9));
    }
}
```

Excercise 6: Write a junit test to check pythagorus theorem.

```
public class Pythag
{
   int Pyt(int n,int m)
   {

      int hyp = (int)Math.sqrt((n*n)+(m*m));
      return hyp;
   }
}
```

—----------

```
import static org.junit.jupiter.api.Assertions.*;

import org.junit.jupiter.api.Test;

public class JunitTest
{
   @Test
   void Test()
   {
      Pythag obj = new Pythag();
      assertEquals(obj.Pyt(4,3),5);
   }
}
```

Excercise 7: Write a junit test to check area of circle.

```
public class AreaCircle
{
   public double Carea(double r)
   {

      double Area = 3.14*r*r;
      return Area;
   }
}
```

———

```
import static org.junit.jupiter.api.Assertions.*;
```

```
import org.junit.jupiter.api.Test;

public class JunitTest
{
    @Test
    void Test()
    {
        AreaCircle obj = new AreaCircle();
        assertEquals(obj.Carea(2),12.56);
    }
}
```