

Quadratic Equation: $a x^2 + b x + c = 0$

Enter the value of a: 0

not a quadratic equation. Enter non-zero value of a; !?

Quadratic Equation: $a x^2 + b x + c = 0$

Enter the value of a: 2.3

Enter the value of b: 4

Enter the value of c: 5.6

The roots are Imaginary

Roots: -0.87+1.30 i and -0.87-1.30 i

Quadratic Equation: $a x^2 + b x + c = 0$

Enter the value of a: 1

Enter the value of b: -4

Enter the value of c: +4

~~Enter~~ The roots are real and equal: 2

Quadratic Equation: $a x^2 + b x + c = 0$

Enter the value of a: 1

Enter the value of b: -4

Enter the value of c: 10

~~The roots are -1 and 10~~

```
for (i=1; i<=n; i++)
```

```
f*=i * f
```

```
{
```

```
System.out.println ("The factorial of " + n + " is " + f);
```

```
}
```

Enter a positive integer: 5

The factorial of 5 is 120.

Enter a positive integer: 7

Enter a positive integer: 11

Enter a positive integer: 0

The factorial of 0 is 1.

7) Write a program in JAVA to find the area of the rectangle and verify the same with some random inputs of length and breadth.

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

```
class RectangleArea {
```

```
public static void main (String args[]) {
```

```
int l, b;
```

```
l = Integer.parseInt (args[0]);
```

```
b = Integer.parseInt (args[1]);
```

```
int area = l * b;
```

```
System.out.println ("length of rectangle = " + l + " units");
```

```
System.out.println ("breadth of rectangle = " + b + " units");
```

```
System.out.println ("area of rectangle = " + area + " units");
```

```
}
```

```
}
```

(11) give RectangleArea.java

(11) give RectangleArea 20

length of rectangle = 20 units

breadth of rectangle = 40 units

area of rectangle = 800 units

3) Write a program
function).

Import java
class Rec

Pub

3) Write a program in JAVA to find the sum of digits for a given number using a function / method.

```
import java.util.*;  
class sum_of_digits  
{  
    public static void main (String args[])  
    {  
        Scanner s = new Scanner (System.in);  
        System.out.print ("Enter a number : ");  
        int n = s.nextInt ();  
        System.out.println ("Sum of digits of " + n + " is " + getSum (n));  
    }  
  
    static int getSum (int n)  
    {  
        int sum = 0;  
        while (n != 0)  
        {  
            sum = sum + n % 10;  
            n /= 10;  
        }  
        return sum;  
    }  
}
```

Enter a number : 95814

Sum of digits of 95814 is 28

4) Write a program in JAVA to check whether a given number is palindrom or not using user defined function.

```
import java.util.*;  
class Palindrome  
{  
    public static void main (String args[])  
    {  
        Scanner s = new Scanner (System.in);  
        System.out.print ("Enter any positive integer : ");  
        int n = s.nextInt ();  
        int r = reverse (n);  
        System.out.println ("Reverse of " + n + " = " + r);  
        if (n == r)  
    }  
    int reverse (int n)  
    {  
        int r = 0;  
        while (n != 0)  
        {  
            r = r * 10 + n % 10;  
            n /= 10;  
        }  
        return r;  
    }  
}
```

System.out.println("Palindrome Number");

else

System.out.println("Not a Palindrome Number");

}

static int reverse (int n)

{

 int rev = 0;

 while (n > 0)

 {

 rev = rev * 10 + n % 10;

 }

 return rev;

}

Enter a positive integer : 6754

Reverse of 6754 = 4596

Not a Palindrome Number

Enter a positive integer : 696

Reverse of 696 = 696

Palindrome Number.

• addition of snippet to programs

while (a == 0)

{

 System.out.println("Not a quadratic equation");

 System.out.println("Enter a non-zero value for a != 0");

 System.out.println("There exists no solution");

}

*Fin
09/01/24*