

slip6

```
import java.util.Scanner;

import java.io.*;

class NumberIsZeroException extends Exception {

    NumberIsZeroException() {}

}

class Number {

    static int no;

    Number() throws IOException {

        try (Scanner sc = new Scanner(System.in)) {

            System.out.println("Enter no: ");

            no = sc.nextInt();

        }

        try {

            if (no == 0) {

                throw new NumberIsZeroException();

            }

            cal();

        } catch (NumberIsZeroException e) {

            System.out.println("Number is zero");

        }

    }

}
```

```
void cal() {  
    int f = 0, l = 0;  
    f = no % 10;  
    if (no > 9) {  
        while (no > 0) {  
            l = no % 10;  
            no = no / 10;  
        }  
        System.out.println("Addition of first and last digit = " + (f + l));  
    } else {  
        System.out.println("Addition of first and last digit = " + f);  
    }  
}  
}
```

```
public class s6q1 {  
    public static void main(String[] args) throws IOException {  
        Number n = new Number();  
    }  
}
```

```
class s6q2 {  
    public static void main(String[] args) {
```

```
int original_matrix[][] = { { 1, 2, 3 }, { 4, 5, 6 }, { 7, 8, 9 } };
```

```
int transpose_matrix[][] = new int[3][3];
```

```
for(int i = 0; i < 3; i++) {
```

```
    for(int j = 0; j < 3; j++) {
```

```
        transpose_matrix[j][i] = original_matrix[i][j];
```

```
    }
```

```
}
```

```
System.out.println("Original Matrix");
```

```
for(int i = 0; i < 3; i++) {
```

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

```
    for(int j = 0; j < 3; j++) {
```

```
        System.out.print(original_matrix[i][j] + " ");
```

```
    }
```

```
}
```

```
System.out.println("\n\nTranspose Matrix");
```

```
for(int i = 0; i < 3; i++) {
```

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

```
    for(int j = 0; j < 3; j++) {
```

```
        System.out.print(transpose_matrix[i][j] + " ");
```

```
    }
```

```
}
```

```
}
```

```
}
```

```
import math
```

```
def cube_area(a):
```

```
    return 6 * (a **2)
```

```
def cube_volume(a):
```

```
    return a ** 3
```

```
def sphere_area(radius):
```

```
    return 4 * math.pi * (radius ** 2)
```

```
def sphere_volume(radius):
```

```
    return (4/3) * math.pi * (radius ** 3)
```

```
# Input for cube
```

```
a= float(input("Enter the side length of the cube: "))
```

```
print(f"Surface area of the cube: {cube_area(a)}")
```

```
print(f"Volume of the cube: {cube_volume(a)}")
```

```
# Input for sphere
```

```
radius = float(input("\nEnter the radius of the sphere: "))
```

```
print(f"Surface area of the sphere: {sphere_area(radius)}")
```

```
print(f"Volume of the sphere: {sphere_volume(radius)}")
```

```
import tkinter as tk
```

```
from tkinter import font
```

```
def updatefont():
```

```
    name="Helvetica" if fname.get()else "Arial"
```

```
    weight="bold" if fweight.get() else "normal"
```

```
    size=20 if fsize.get() else 12
```

```
    label.config(font=(fname,fsize,fweight))
```

```
root=tk.Tk()
```

```
root.title("font style change")
```

```
label=tk.Lable(root,text="hello world".front=("Arial",12))
```

```
label.pack(pady=10)
```

```
fname=tk.BooleanVar()
```

```
fweight=tk.BooleanVar()
```

```
fsize=tk.BooleanVar()
```

```
namecheck=tk.Cheackbutton(root,text="Use Helvetica" , variable=fname,  
command=updatefont)
```

```
namecheck.pack()
```

```
boldcheck = tk.Checkbutton(root, text="Bold", variable=fweight, command=updatefont)
```

```
boldcheck.pack()
```

```
sizecheck = tk.Checkbutton(root, text="Large Size (20)", variable=fsize ,  
command=updatefont)
```

```
size_heck.pack()
```

```
root.mainloop()
```