```python
# Stress When depth is constant
Q = float(input("Enter the value of Load in kN: "))
N = int(input("Number of data values of radial distance: "))
pi = 3.14159265359
Z = float(input("Depth: "))
r = []
for i in range(1, N+1):
    print("Enter radial distance in m".format(i))
    Value_r = float(input())
    r.append(Value_r)
    Stress = ((3*Q)/(2*pi*Z*Z)) * (((1/(1+((Value_r/Z)**2))))**2.5)
    print("'Stress: ", Stress, "kN/m^2")
```

```
Enter the value of Load in kN: 2500
Number of data values of radial distance: 5
Depth: 6
Enter radial distance in m
1
'Stress: 30.962130445358056 kN/m^2
Enter radial distance in m
2
'Stress: 25.479163627894877 kN/m^2
Enter radial distance in m
3
'Stress: 18.280334409112347 kN/m^2
Enter radial distance in m
4
'Stress: 13.22290223969301 kN/m^2
Enter radial distance in m
5
'Stress: 8.871775810212231 kN/m^2
```

```python
# Stress when Radius is Constant
Q = float(input("Enter the value of Load in kN: "))
M = int(input("Number of data values of depth: "))
pi = 3.14159265359
r = float(input("Radial Distance: "))
Z = []
for j in range(1, M+1):
    print("Enter depth in z".format(j))
    Value_Z = float(input())
    Z.append(Value_Z)
    Stress = ((3*Q)/(2*pi*Value_Z*Value_Z))*(((1/(1+((r/Value_Z)**2))))**2.5)
    print("'Stress: ", Stress, "kN/m^2")
```

```
Enter the value of Load in kN: 2500
Number of data values of depth: 6
Radial Distance: 5
Enter depth in z
1
'Stress: 0.34629643854273023 kN/m^2
Enter depth in z
2
'Stress: 2.1085135063018074 kN/m^2
Enter depth in z
3
'Stress: 4.781320614736756 kN/m^2
Enter depth in z
4
'Stress: 7.0974399578803125 kN/m^2
Enter depth in z
5
'Stress: 8.440465463972316 kN/m^2
Enter depth in z
6
'Stress: 8.871775810212231 kN/m^2
```

```python
# Calculating the stress by Boussineq's Theory
Q = int(input("Enter the value of given load :"))
z = int(input("Enter the distance of vertical stress :"))
r = int(input("Enter the distance of horizontal stress:"))
stress = ((3*Q*(1/(1+(r/z)**2)) **2.5))/(2*3.14*(z**2))
print("The value of stress is", stress)
```

```
Enter the value of given load :2500
Enter the distance of vertical stress :6
Enter the distance ofhorizntal stress:5
The value of stress is 8.876275703713446
```