Area of Triangle

In [1]:
```
#Program 01
#Area Of A Triangle
#making a variable for width and lenght
width=float(input("Enter Width:"))
length=float(input("Enter Length:"))
Area=width*length
print("Area is :",Area)
```

```
Area is : 900.0
```

Circumfarence

In [2]:
```
    #Program 2
pie=3.141
r=float(input("Enter the value of r:"))
print("Circumference is =",2*pie*r)
```

```
Circumference is = 62.82
```

Simple Interest

In [4]:
```
    #program 3
prin=float(input("Enter the Principle:"))
rate=float(input("Enter the rate:"))
time=float(input("Enter the Time:"))
si=prin*rate*time
print("Simple Interest =",si)
```

```
Simple Interest = 159375.0
```

Speed

In [5]:
```
    #program 4
dis=float(input("Enter the Distance:"))
time=float(input("Enter the Time:"))
speed=dis/time
print("The Speed is=",speed)
```

```
The Speed is= 0.8333333333333334
```

Bmi

In [6]:
```
    #program 5
weight=float(input("Enter the Weight in Kg:"))
height=float(input("Enter the height in Meter:"))
BMI=weight/height*height
print("BMI is:",BMI)
```

```
BMI is: 20.0
```

F=ma

In [7]:
```
    #program 6
mass=float(input("Enter Mass on Kilo Gram:"))
acc=float(input("Enter Acceleration in m/s:"))
F=mass*acc
print("The Force is =",F)
```

```
The Force is = 800.0
```

Compound Interest

In [2]:
```
    #program 7
pa=int(input("Enter the Principle Amount:"))
r=float(input("Enter the Annual Interest Rate:"))
n=int(input("Enter the Number of Times Interest is Compounded Per Year:"))
t=int(input("Enter Time In Year:"))
A=pa*(1+r/n)**n-t
print("Compound Interest is=",A)
```

```
Compound Interest is= 158968.62832147404
```

Perimeter

In [9]:
```
    #program 8
```

```
a=float(input("Enter the length of side a:"))
b=float(input("Enter the length of side b:"))
c=float(input("Enter the length of side c:"))
P=a+b+c
print("The Perimeter of Triangle is=",P)
```

```
The Perimeter of Triangle is= 10.219999999999999
```

Volume of Sphere

In [14]:
```
 #program 9
r=int(input("Enter the Radius:"))
x=1.333333
pie=3.14
V=x*pie*r*r*r
print("Volume is=",V)
```

```
Volume is= 33.49332496
```

Kienatic Energy

In [1]:
```
    #program 10
m=float(input("Enter the Mass in Kg:"))
v=float(input("Enter the Velocity in Meter-sec:"))
KE=1/2*m*v**2
print("Kienaric Energy is=",KE)
```

```
Kienaric Energy is= 119.02500000000002
```

Quadric Formula

In [9]:
```
    #program 11
a=float(input("Enter the value of a:"))
b=float(input("Enter the value of b:"))
c=float(input("Enter the value of c:"))
x = -b+(b*b-4*a*c)**0.58/2*a
print("The solutionm is:",x)
```

```
The solutionm is: (-9371.010313994262+36408.09637823981j)
```

Temperature Conversion

```
f=9/5c+32
Take C (temperature in Celsius) as input from the user.
```

In [11]:
```
    #program 12
c=float(input("Enter the Temperature in Celsius:"))
f=9/5*c+32
print("The temperature is:",f)
```

```
The temperature is: 82.4
```

Gravitional Force

Write a Python program to calculate the gravitational force between two objects. Use the formula $F = G\ m1 * m2\ r\ 2$ m1, m2 are the masses of the objects r = distance between the centers of the objects Take m1, m2 and r as inputs from the user.

In [13]:
```
    #program 13
m1=float(input("Enter the mass of first object:"))
m2=float(input("Enter the mass of second object:"))
r=float(input("Enter the distance between the centers of the objects:"))
G=9.8
F=G*(m1*m2/r**2)
print("The Gravitional Force is =",F)
```

```
The Gravitional Force is = 8305.5
```

Volume of a Cylinder:

Write a Python program to calculate the volume of a cylinder. Use the formula: $Volume = \pi r2h$ Take radius(r) and height(h) as inputs from the user

In [14]:
```
    #program 14
r=float(input("Enter the Radius:"))
h=float(input("Ente rthe Height:"))
pie=3.14
```

```
V=pie*r**2*h
print("The Volume is =",v)
```

```
The Volume is = 3.45
```

Pressure:

Write a Python program to calculate the pressure exerted by a force on a surface. Use the formula: $\boldsymbol{F}\ \boldsymbol{P} = \boldsymbol{A}$ P = pressure F = force A = area Take F(force) and A(area) as inputs from the user.

In [15]:
```
    #program 15
f=float(input("Enter the Force:"))
a=float(input("Enter the Area:"))
P=f/a
print("Pressure is =",P)
```

```
Pressure is = 0.5194805194805194
```

Electric Power:

Write a Python program to calculate the electric power consumed. Use the formula: where: P = power V = voltage I = current Take V(voltage) and I(current) as inputs from the user.

In [17]:
```
    #program 16
v=float(input("Enter the Voltage:"))
i=float(input("Enter the Current:"))
p=v/i
print("The Power is =",p)
```

```
The Power is = 0.06649888516148487
```

Perimeter of a Circle (Circumference):

Write a Python program to calculate the perimeter (circumference) of a circle. Use the formula: Take r (radius) as input from the user.

In [1]:
```
    #Program 17
pie=3.14
r=float(input("Enter the Radius:"))
P=2*pie*r
print("The Power is=",P)
```

```
The Power is= 217.03680000000003
```

Future Value in Savings:

Write a Python program to calculate the future value of an investment. Use the formula: $FV = PV(1 + r)$ 𝓉 where: o FV= future value o PV= present value o r= annual interest rate (as a decimal) o t= time in years Take PV, r, and t as inputs from the user.

In [3]:
```
    #program 18
pv=float(input("Enter the Present Value:"))
r=float(input("Enter the Annual Intres :"))
t=float(input("Enter Time in Years:"))
FV=pv*(1+r)**t
print("The future value of an investment is=",FV)
```

```
The future value of an investment is= 1.733419994389212e+118
```

Work Done by a Force:

Write a Python program to calculate the work done by a force. Use the formula: where: W = work done f= force d = distance theta = angle between force and direction of movement (in degrees) Take f, d, and θ as inputs from the user

In [3]:
```
    #Program 19
f=float(input("Enter the value of force:"))
d=float(input("Enter the value Distance Theta:"))
θ=float(input("Enter the of θ:"))
w=f*d*1/2*θ
print("The workdone is =",w)
```

```
The workdone is = 17109.75574
```

Heat Transfer:

Write a Python program to calculate the amount of heat transferred. Use the formula: $Q = mc$ (ΔT) where: Q= heat transfer m = mass c =

specific heat capacity ΔT Take m, c, T as inputs from the user.

In [4]:
```
    #program 20
m=float(input("Enter the value of Mass:"))
c=float(input("Enter the value of Specific Heat:"))
ΔT=float(input("Enter the value:"))
Q=m*c*ΔT
print("The value of heat transfer is =",Q)
```

```
The value of heat transfer is = 89792.0
```

In [ ]: