TASK 1 Programs

1. Write a program to perform input/output of all basic data types.

SOL:

integer=int(input('Integer input:'))

float\_num=float(input("Float input:"))

string=input("String input:")

print(integer," ",float\_num," ",string)

2. Write a program to enter two numbers and find their sum

SOL:

num1=int(input("First Number:"))

num2=int(input("Second Number:"))

add=num1+num2

print("Sum is:",add)

3. Write a program to enter two numbers and perform all arithmetic operations.

SOL:

num1=int(input("First Number:"))

num2=int(input("Second Number:"))

add=num1+num2

sub=num1-num2

div=num1/num2

mul=num1\*num2

mod=num1%num2

print("Sum is:",add)

print("Subtraction is:",sub)

print("Division is:",div)

print("Multiplication is:",mul)

print("Modulus is:",mod)

4. Write a program to enter length and breadth of a rectangle and find its perimeter.

SOL:

num1=int(input("First Number:"))

num2=int(input("Second Number:"))

per=2\*(num1+num2)

print("Perimeter of rectangle: ",per)

5. Write a program to enter length and breadth of a rectangle and find its area.

SOL:

num1=int(input("First Number:"))

num2=int(input("Second Number:"))

area=(num1\*num2)

print("Area of rectangle: ",area)

6. Write a program to enter radius of a circle and find its diameter, circumference and area.

SOL:

num1=float(input("Radius:"))

area=3.14\*(num1\*\*2)

cir=2\*3.14\*num1

dia=num1\*2

print("Area of circle: ",area)

print("Circumference of circle:",cir)

print("Diameter of circle:",dia)

7. Write a program to enter length in centimeter and convert it into meter and kilometre

SOL:

l=int(input("Enter length in centimeter:"))

meter=l/100

kilo=meter/1000

print("In meter:",meter,"m")

print("In kilometer:",kilo,"Km")

8. Write a program to enter temperature in Celsius and convert it into Fahrenheit

SOL:

t=int(input("Temperature in celsius:"))

f=(t\*(9/5))+32

print("Temperature in F:",f,'F')

9. Write a program to enter temperature in Fahrenheit and convert to Celsius

SOL:

t=int(input("Temperature in Farenheit:"))

c=(t\*2)\*1/10

print("Temperature in C:",c,'C')

10. Write a program to convert days into years, weeks and days.

SOL:

days=int(input("Number of days:"))

years=int(days/365)

week=int((days%365)/7)

days=days-((years\*365)+(week\*7))

print("Years:",years)

print("Weeks:",week)

print("Days:",days)

11. Write a program to find power of any number x ^ y.

SOL:

x=int(input("Enter x:"))

y=int(input("Enter y:"))

result=x\*\*y

print(result)

12. Write a program to enter any number and calculate its square root.

SOL:

import math as m

num=int(input("Enter any number:"))

result=int(m.sqrt(num))

print("Square root is:",result)

13. Write a program to enter two angles of a triangle and find the third angle.

SOL:

su=180

f=int(input("First angle:"))

s=int(input("Second angle:"))

t=abs(s-(f+s))

print("Third angle:",t)

14. Write a program to enter base and height of a triangle and find its area.

SOL:

b=int(input("Enter Base:"))

h=int(input("Enter Height:"))

area=(h\*b)\*0.5

print("Area of triangle:",area)

15. Write a program to calculate area of an equilateral triangle.

SOL:

from math import sqrt

a=int(input("Enter the side:"))

area=(sqrt(3)/4)\*a\*a

print("{:.2f}".format(area))

16. Write a program to enter marks of five subjects and calculate total, average and percentage.

SOL:

m1,m2,m3,m4,m5=input().split()

m1=int(m1)

m2=int(m2)

m3=int(m3)

m4=int(m4)

m5=int(m5)

s=m1+m2+m3+m4+m5

a=int(s/5)

p=(s/500)\*100

print(s)

print(a)

print(p)

17. Write a program to enter P, T, R and calculate Simple Interest.

SOL:

p,n,r=input("Enter Principle , Number of YEAR , Interest:").split()

p=int(p)

n=int(n)

r=float(r)

si=p\*n\*r/100

print(si)

18. Write a program to enter P, T, R and calculate Compound Interest.

SOL:

p,n,r,t=input("Enter Principle , Number of YEAR , Interest , Time of period:").split()

p=int(p)

n=int(n)

r=float(r)

t=int(t)

ci=p\*(1+r/n)\*n\*t

print(ci)

19. Write a program to find maximum between two numbers.

SOL:

num1=int(input("Enter first number:"))

num2=int(input("Enter second number:"))

if num1>num2:

print(num1,"Num 1 is great")

elif num1==num2:

print(num2,"Equal")

else:

print(num2,"Num 2 is great")

20. Write a program to find maximum between three numbers.

SOL:

num1=int(input("Enter first number:"))

num2=int(input("Enter second number:"))

num3=int(input("Enter third number:"))

if num1>num2 and num1>num3:

print(num1,"is Bigger")

elif num2>num1 and num2>num3:

print(num2,"is Bigger")

else:

print(num3,'is Bigger')

21. Write a program to check whether a number is negative, positive or zero.

SOL:

num=input("Enter any number:")

if num=='0':

print(num,"is ZERO")

elif '-' in num:

print("Negative Number")

else:

print("Positive Number")

22. Write a program to check whether a number is divisible by 5 and 11 or not

SOL:

num=int(input("Enter any number:"))

if num%5==0 and num%11==0:

print(num,"is Divisible by 5 and 11")

else:

print("Number is not divisible by 5 and 11")

23. Write a program to check whether a number is even or odd.

SOL:

num=int(input("Enter any number:"))

if num%2==0:

print(num,"is Even")

else:

print("Number is Odd")

24. Write a program to check whether a year is leap year or not.