

Python Examples**Haysky Computer Training**

```
# Check if two given integers are equal or not.
print("Enter two numbers: ")
a = input("Enter a value: ")
b = input("Enter b value: ")
if a==b:
    print("Given numbers are equal.")
else:
    print("Given numbers are not equal.")
```

```
# Check if given integer is even or odd
a = input("Enter a number: ")
rem = int(a)%2
if rem==0:
    print("Given number is even")
else:
    print("Given number is odd")
```

```
# Check if given number is positive or negative or zero
a = int(input("Enter a number: "))

if a>0:
    print("Given number is positive")
elif a<0:
    print("Given number is negative")
else:
    print("Given number is zero")
```

```
# Check if given year is a leap year or not
year = int(input("Enter year: "))
if year%4==0:
    print("Given year is a leap year")
else:
    print("Given year is not a leap year")
```

```
# Check if given person age is a eligible for voting or not
age = int(input("Enter person age: "))
if age>=18:
    print("Eligible for voting")
else:
    print("Not Eligible for voting")
```

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```
# Find Quadrant of a given point in a XY coordinate system
x = int(input("Enter x value: "))
y = int(input("Enter y value: "))
if x>0 and y>0:
    print("The point is in 1st Quadrant")
elif x<0 and y>0:
    print("The point is in 2nd Quadrant")
elif x<0 and y<0:
    print("The point is in 3rd Quadrant")
elif x>0 and y<0:
    print("The point is in 4th Quadrant")
elif x==0 and y==0:
    print("The point is origin")
```

```
# check eligibility of given marks for the following condition
# Maths >=65, Physics >=55, Chemistry>=50, Total>=180
maths = int(input("Enter Maths marks: "))
physics = int(input("Enter Physics marks: "))
chemistry = int(input("Enter Chemistry marks: "))
total = maths + physics + chemistry
if maths>=65 and physics>=55 and chemistry>=50 and total>=180:
    print("Eligible")
else:
    print("Not eligible")
```

```
# find total & percentage of given 3 subject marks out of 75 maximum marks
maths = int(input("Enter Maths marks: "))
physics = int(input("Enter Physics marks: "))
chemistry = int(input("Enter Chemistry marks: "))
total = maths + physics + chemistry
percentage = total/225
print("Total of 3 subjects is "+str(total))
print("\nPercentage of total 3 subjects is "+str(percentage*100))
```

```
# display 4 suitable messages according to given temperature
temp = int(input("Enter Temperature: "))
if temp<0:
    print("Freezing weather")
elif temp<25:
    print("Cool")
elif temp<=35:
    print("Normal")
elif temp>35:
    print("Hot")
```

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```
# check if a triangle (given sides) is Equilateral, Isosceles or Scalene
a = input("Enter side a: ")
b = input("Enter side b: ")
c = input("Enter side c: ")
if a==b and b==c:
    print("Equilateral Triangle")
elif a==b or b==c or a==c:
    print("Isosceles Triangle")
else:
    print("Scalene Triangle")
```

```
# check if triangle is valid with given angles (sum==180)
a = input("Enter angle a: ")
b = input("Enter angle b: ")
c = input("Enter angle c: ")
z = int(a)+int(b)+int(c)
if z==180:
    print("Triangle is valid")
else:
    print("Triangle is invalid")
```

```
# check if given alphabet is vowel or consonant
a = input("Enter a letter between A-Z: ")
if a=='A' or a=='E' or a=='I' or a=='O' or a=='U':
    print("Given letter is vowel")
else:
    print("Given letter is consonant")
```

```
# calculate profit or loss for a given cost and price
cost = int(input("Enter your cost: "))
price = int(input("Enter your price: "))
if price>cost:
    print("Profit: "+str(price-cost))
else:
    print("Loss: "+str(cost-price))
```

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```
# calculate Electricity bill: Rs.5 per unit & minimum bill: 100/-
# If Bill>400 then 15% surcharge is added
units = int(input("Enter number of units: "))
bill = units * 5
print("Actual Bill: "+str(bill))
if bill<100:
    print("Minimum Bill: "+str(bill))
    total = 100
elif bill>400 :
    surcharge = (bill*15)/100
    print("Surcharge:"+str(surcharge))
    total = bill + surcharge
else:
    total = bill
print("Total Bill Amount: "+str(total))
```

```
# Display given 'n' natural numbers
n = int(input("Enter a number: "))
for i in range(1,n+1):
    print(i)
```

```
# Calculate sum of given 'n' natural numbers
n = int(input("Enter a number: "))
ans = 0;
for i in range(1,n+1):
    ans = ans + i
print("Sum of "+str(n)+" natural numbers is "+str(ans))
```

```
# Calculate sum and average of given 'n' numbers
n = int(input("Enter a number: "))
a = 0
for i in range(1,n+1):
    temp = int(input("Enter number"+str(i)+": "))
    a = a + temp
print("Sum of given numbers is "+str(a))
print("Average of given numbers is "+str(a/n))
```

```
# Display cubes given 'n' natural numbers
n = int(input("Number of cubes: "))
for i in range(1,n+1):
    print("Cube of "+str(i)+" is "+str(i*i*i))
```

```
# Display multiplication table of given number
n = int(input("Enter number: "))
for i in range(1,11):
    print(str(n)+" x "+str(i)+" = "+str(i*n))
```

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```
# Display multiplication tables upto given number
n = int(input("Enter number:"))
for k in range(1,n+1):
    for i in range(1,11):
        print(str(k)+" x "+str(i)+" = "+str(i*k))
    print("\n")
```

```
# Display and calculate sum of odd numbers upto given 'n'
summ=0
k=1
n = int(input("Enter a number:"))
for i in range(1,n+1):
    summ = summ + k
    print(k)
    k = k+2
print("\nSum is "+str(summ))
```

```
# Calculate factorial of given 'n'
fact=1
n = int(input("Enter a number to find factorial: "))
for i in range(1,n+1):
    fact = fact * i
print("Factorial of "+str(n)+" is "+str(fact))
```

```
# Check if given number is prime or not
import math
flag = 1
n = int(input("Enter a number:"))
sq = int(math.sqrt(n))
for i in range(2,sq+1):
    # If n is divisible by any number between
    # 2 and n/2, it is not prime
    if n%i==0:
        flag = 0
        break
    if n <= 1:
        flag = 0
if flag==1:
    print(str(n)+" is a prime number")
else:
    print(str(n)+" is not a prime number")
```

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```
# Display Fibonacci series upto given number
f1 = 0
f2 = 1
n = int(input("Enter a number:"))
print(f1)
for i in range(1,n):
    print(f2)
    nxt = f1 + f2
    f1 = f2
    f2 = nxt
```

```
"""
Display pattern below
*      1      1      1
**     12     22     23
***    123    333    456
****   1234   4444   78910
"""
n = int(input("Enter a number:"))
k = 1
for a in range(0,n+1):
    # For spaces
    for z in range(0,n-a):
        print(" ", end = "")
    # For elements (enable any one line)
    for b in range(0,a):
        print("*", end = " ")
        # print(a, end = " ")
        # print(b, end = " ")
        # print(++k, end = " ")
    print("\n")
```

```
"""
Display pattern below
  *
 ***
*****
 ***
  *
"""
n = int(input("Enter a number:"))
for a in range(0,n):
    for z in range(0,n-a):
        print(" ", end = "")
    for b in range(0,a):
        print("* ",end="")
    print("\n")
for a in range(0,n):
    for z in range(0,a):
        print(" ", end = "")
    for b in range(0,n-a):
        print("* ",end="")
    print("\n")
```
