```
temp = float(input('enter the temperature(celsius C):'))
farh = (temp * 1.8)+32
print(f"{temp}is equal to {farh}F")

enter the temperature(celsius C):36
36.0is equal to 96.8F

x = int(input('enter the value of x : '))
if x % 2 == 0:
  print('x is an even number')
else:
  print('x is an odd number')

enter the value of x : 13
x is an odd number
```

chain condition

```
x = int(input('enter the value of x : '))
y = int(input('enter the value of y : '))

if(x>y):
  print(f'{x} is larger than {y}')
elif(x<y):
  print(f'{x} is smaller than {y}')
else:
  print(f'{x} is equal to {y}')

enter the value of x : 18
enter the value of y : 20
18 is smaller than 20
```

Nested condition

```
x = int(input('enter the value of x : '))
y = int(input('enter the value of y : '))

if(x==y):
  print(f"{x} is greater than {y}")
else:
  if (x > y):
    print(f"{x} is greater than {y}")
  else:
    print(f"{x} is less than {y}")

enter the value of x : 10
enter the value of y : 4
10 is greater than 4
```

```python
x = int(input('enter the value of x : '))

if(x>0):
  print(f"{x}  is positive number")
else:
  if (x <0):
    print(f"{x} is negative number")
  else:
    print(f"{x} is equal to zero ")

enter the value of x : -19
-19 is negative number
```

marks, grade calculator

```python
marks = int(input('enter the marks obtained :'))

if marks<=40:
  grade = 'F'
elif 40<marks<=50:
  grade = 'E'
elif 50<marks<=60:
  grade = 'D'
elif 60<marks<=70:
  grade = 'C'
elif 70<marks<=80:
  grade = 'B'
elif 80<marks<=90:
  grade = 'A'
else:
  grade = 'A+'

print(f"your Grade is {grade}")

enter the marks obtained :99
your Grade is A+

marks = int(input('enter the marks obtained :'))

try:
  if marks<=0 or marks>=100:
    print('Error:Marks is out of range. Please enter the marks between
0 to 100')
  else:
    if marks<=40:
      grade = 'F'
    elif 40<marks<=50:
      grade = 'E'
    elif 50<marks<=60:
      grade = 'D'
```

```python
    elif 60<marks<=70:
     grade = 'C'
    elif 70<marks<=80:
     grade = 'B'
    elif 80<marks<=90:
     grade = 'A'
    else:
     grade = 'A+'
    print(f"your Grade is {grade}")
except:
  print ('Error: please enter valid number')
```

```
enter the marks obtained :66
your Grade is C
```

vote

```python
name = input('enter your name : ')
age = int(input('enter your age :'))

if age>=18:
  print('your are eligible to vote')
else:
  print('your not eligible to vote')
```

```
enter your name : tejaswini
enter your age :3
your not eligible to vote
```

```python
name = input('enter your name :')
age = int(input('enter your age :'))
citizen = input('Are you are an Indian citizen (yes or no):')
id = input('Do you have a valid ID (yes or no):')

try:
  if age<0:
    print('enter a valid age.please enter greater than 0')
  else:
    if age>=18 and citizen =='yes' and id =='yes':
      print(f" {name} are eligible to vote.")
    else:
      print(f" {name} are not eligible to vote.")
except:
  print('Error: please enter a valid input.')
```

```
enter your name :tejaswini
enter your age :3
Are you are an Indian citizen (yes or no):yes
Do you have a valid ID (yes or no):yes
 tejaswini are not eligible to vote.
```

```python
import math
math.sqrt(122)
```

11.045361017187261

```python
import random
random = random.sample(range(0,10),5)
random
```

[1, 0, 3, 4, 2]

```python
def user_name(teju):
    print(teju)
```

```python
user_name('teju')
```

teju

```python
user_name('teju'*2)
```

tejuteju

```python
def add_number(a,b):
    add = a+b
    return add
a = add_number(3,4)
print(a)
```

7

```python
def multiply_two(x,y):
    multi = x*y
    return multi
a = multiply_two(120,45)
print(a)
```

5400

```python
def division_two(x,y):
    div = x/y
    return div
a = division_two(20,2)
print(a)
```

10.0

simple calculator

```python
def calculate(a,b,operator):
    if operator =='+':
```

```python
        return a+b
    elif operator =='-':
        return a-b
    elif operator =='*':
        return a*b
    elif operator =='/':
        return a/b
    else:
        return 'Invalid operator'

a = float(input('enter the first number:'))
b = float(input('enter the second number:'))
operator = input('enter operator(+,-,*,/):')

result = calculate(a,b,operator)
print(f'Result : {result}')

enter the first number:18
enter the second number:20
enter operator(+,-,*,/):+
Result : 38.0

def simple_intrest(P,R,T):
    SI = (P*R*T)/100
    return SI
P = float(input('enter the Principle Amount:'))
R = float(input('enter the Rate of interest:'))
T = int(input('enter the T value:'))

result = simple_intrest(P,R,T)
print(f"result:{result}")

enter the P value:23
enter the R value:34
enter the T value:2
result:15.64
```

palindrom number

```python
num = int(input('enter the number'))
temp = num
rev = 0
while(num>0):
    dig = num%10
    rev = rev*10+dig
    num = num//10
if (temp==rev):
    print(f"{rev} is a palindrom number")
else:
    print(f"{rev} is not a palindrom number")
```

```
enter the number121
121 is a palindrom number
```

or

```python
def is_palindrome(s):
    return s==s[::-1]
string = input('enter a string : ')

if is_palindrome(string):
    print(f'{string} is a palindrome')
else:
    print(f'{string} is not a palindrom')

enter a string : 141
141 is a palindrome
```

iteration

```python
n = 10
while True:
    print(n,end=' ')
    n-=1
    if(n<0):
        break
print('Done')

10 9 8 7 6 5 4 3 2 1 0 Done

n = 10
while True:
    print(n)
    n-=1
    if(n<0):
        break
print('Done')

10
9
8
7
6
5
4
3
2
1
0
Done
```

```python
n= 10
while n>0:
    print(n)
    n -=1
print('End')
```

```
10
9
8
7
6
5
4
3
2
1
End
```

```python
while True:
  line = input('>')
  if line =='Done':
    break
  print(line)
print('finised')
```

```
>tejaswini
tejaswini
>done
done
>Done
finised
```

```python
while True:
  line = input('>')
  if line[0] == '@':
    continue
  if line =='Done':
    break
  print(line)
print('finised')
```

```
>@teju
>Done
finised
```

```python
  password = 'teju18'

  while True:
    user_password = input('enter the password:')

    if user_password == password:
```

```python
        print('password is correct')
        break
    else:
        print('password is incorrect')
```

```
enter the password:143
password is incorrect
enter the password:teju18
password is correct
```