

```
num=float(input("enter a number :"))
sqrt =num**0.5
print('The square root of %0.3f is %0.3f'%(num ,sqrt))
```

enter a number :36
The square root of 36.000 is 6.000

```
x = 5
y = 10

temp = x
x = y
y = temp

print('The value of x after swapping: {}'.format(x))
print('The value of y after swapping: {}'.format(y))
```

The value of x after swapping: 10
The value of y after swapping: 5

```
num=float(input("enter a number:"))
if num>0:
    print("positive number")
elif num==0:
    print("zero")
else:
    print("negative number")
```

enter a number:5
positive number

```
num=float(input("enter a number:"))
if num%2==0:
    print("even number")
else:
    print("odd number")
```

enter a number:32
even number

```
num=int(input("enter a number:"))
factorial = 1

for i in range(1, num + 1):
    factorial *= i

print("Factorial of", num, "is", factorial)
```

enter a number:5
Factorial of 5 is 120

```
str='ahiha'
str=str.casefold()
rev_str=reversed(str)
if list(str)==list(rev_str):
    print("the string is palindrome")
else:
    print("the string is not palindrome")
```

the string is palindrome

```
import pandas as pd
data={'Name' : ['ram' , 'bob' , 'alice'],
      'Age' : [ '25' , '44' , '13'],
      'city' : [ 'london' , 'paris' , 'new york' ] }
df=pd.DataFrame(data)
print(df)
```

	Name	Age	city
0	ram	25	london
1	bob	44	paris

```
2 alice 13 new york
```

```
df["Age"]
```

	Age
0	25
1	44
2	13

```
dtype: object
```

```
df['Age']=pd.to_numeric(df['Age'])  
df[df["Age"]>25]
```

	Name	Age	city
1	bob	44	paris

```
def AND_gate (a,b,c):  
    return a and b and c  
inputs = [ (0,0,0),(0,0,1),(0,1,0),(0,1,1),(1,0,0),(1,0,1),(1,1,0),(1,1,1)  
    ]  
print("A B C | output")  
print("_____")  
for a,b,c in inputs:  
    print(f"{a} {b} {c} | {int (AND_gate(a,b,c))}")
```