

```
import math
n=int(input())
print(math.sqrt(n))
```

```
↔ 4
   2.0
```

```
a=int(input("enter 1st num"))
b=int(input("enter 2nd num"))
c=a
a=b
b=c
print(a)
print(b)
```

```
↔ enter 1st num2
   enter 2nd num3
   3
   2
```

```
n=int(input())
if(n>=0):
    print("num is positive")
else:
    print("num is negative")
```

```
↔ 4
   num is positive
```

```
n=int(input())
if(n%2==0):
    print("num is even")
else:
    print("num is odd")
```

```
↔ 5
   num is odd
```

```
import math
n=int(input())
print(math.factorial(n))
```

```
↔ 3
   6
```

```
n=input()
if(n==n[::-1]):
    print("palindrome")
else:
    print("not palindrome")
```

```
↔ 323
   palindrome
```

```
import pandas as pd
data={ "Name":["sai", "priya","sinchana"],
        "Age":[20,25,27],
        "city":["bgl", "hyd", "chennai"]}
df=pd.DataFrame(data)
print(df)
```

```
↔
```

	Name	Age	city
0	sai	20	bgl
1	priya	25	hyd
2	sinchana	27	chennai

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



Age

0 20

1 25

2 27

dtype: int64

df[df["Age"]>25]



	Name	Age	city
--	------	-----	------

2	sinchana	27	chennai
---	----------	----	---------

3-input AND gate implementation

```
def AND_gate_3(a, b, c):
    return a and b and c # Logical AND for three inputs
```

Test the AND gate

```
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_3(a, b, c))}")
```



A B C | Output

```
-----
0 0 0 | 0
0 0 1 | 0
0 1 0 | 0
0 1 1 | 0
1 0 0 | 0
1 0 1 | 0
1 1 0 | 0
1 1 1 | 1
```