```
import math
print(math.sqrt(10))
```

```
3.1622776601683795
```

```
import math
print(math.floor(5.67))
print(math.ceil(5.67))
```

```
5
6
```

```
import random
print(random.randint(1,100))
```

```
66
```

```
import random
for i in range(5):
  print(random.randint(10,20))
```

```
18
17
20
12
19
```

```
import datetime
print(datetime.datetime.today())
```

```
2025-12-04 13:54:41.841548
```

```
from datetime import date
today=date.today()
print(today.day)
print(today.month)
print(today.year)
```

```
4
12
2025
```

```
import os
print(os.getcwd())
```

```
/content
```

```
import os
print(os.listdir())
```

```
['.config', 'sample_data']
```

```
import sys
print(sys.version)
```

```
3.12.12 (main, Oct 10 2025, 08:52:57) [GCC 11.4.0]
```

```
import json
json_string='{"name":"mayuri"}'
dictonary=json.loads(json_string)
print(dictonary)
```

```
{'name': 'mayuri'}
```

```
import math
print(math.cos(0))
print(math.sin(0))
print(math.log(10))
```

```
1.0
0.0
2.302585092994046
```

```
import random
results = []
for _ in range(5):
    roll = random.randint(1, 6)
    results.append(roll)

print(results)
```

```
[6, 5, 5, 3, 4]
```

```
from datetime import date
birthday_day = 3
birthday_month = 12
today = date.today()
next_birthday = date(today.year, birthday_month, birthday_day)
if next_birthday < today:
    next_birthday = date(today.year + 1, birthday_month, birthday_day)
days_left = (next_birthday - today).days
print(days_left)
```

```
364
```

```
from datetime import datetime, timedelta
date_string = "2022-05-15"
dt = datetime.strptime(date_string, "%Y-%m-%d")
new_date = dt + timedelta(days=30)
print("Original date:", dt)
print("Date after 30 days:", new_date)
```

```
Original date: 2022-05-15 00:00:00
Date after 30 days: 2022-06-14 00:00:00
```

```
import os
print(os.mkdir("backup"))
```

```
---------------------------------------------------------------------------
FileExistsError                           Traceback (most recent call last)
/tmp/ipython-input-1446750343.py in <cell line: 0>()
      1 import os
----> 2 print(os.mkdir("backup"))

FileExistsError: [Errno 17] File exists: 'backup'
```

Next steps: Explain error

```
import json
dictonary={'name':'mayuri'}
print(json.dumps(dictonary))
```

```
{"name": "mayuri"}
```

```
import re
string="qu322jjfj78dds0"
print(re.findall('[0-9]',string))
```

```
['3', '2', '2', '7', '8', '0']
```

```
import re
string="Hello world "
if re.match("Hello",string):
  print("match")
else:
  print("not match")
```

```
match
```

```
import statistics
data=[1,2,3,4,5,6,7,7,8]
print(statistics.mean(data))
```

```
print(statistics.median(data))
print(statistics.mode(data))
```

```
4.777777777777778
5
7
```

```
import time
start_time=time.time()
for i in range(1,1000):
  pass
end_time=time.time()
execution_time=end_time-start_time
print(execution_time)
```

```
0.0002200603485107422
```