

## Today Topics

- String Methods

### Data Structures

- List

```
In [1]: 1 # prime number
        2 # 17 (1,2,3,...17) # 2
        3 # 17 (2,3,...16) # 0
```

```
In [3]: 1 # factors
        2 # 8 (1,2,4,8)
        3
        4 n = int(input("enter a number")) # 4(1,2,4)
        5 c= 0 #1,2,3
        6 for i in range(1,n+1): #1,2,3,4
        7     if n%i == 0: # 4%1==0, 4%2==0,4%3==0,4%4==0
        8         print(i,end = " ")
        9         c=c+1 # 1,2
       10 print()
       11 print(c)
```

```
enter a number8
1 2 4 8
4
```

```
In [11]: 1 n = int(input("enter a number")) # 6(1,2,3,6)
        2 c= 2
        3 for i in range(2,n): # 2,3,4,5
        4     if n%i == 0:
        5         #print(c)
        6         c=c+1
        7 print(c)
```

```
enter a number6
4
```

```
In [3]: 1 print(5/2)
        2 print(5//2)
        3 print(5%2)
```

...

```
In [12]: 1 # prime number
        2 # 17 (1,2,3,...17) # 2 # 1 =0 #8 =4
        3 # 17 (2,3,...16) # 0
```

```
In [23]: 1 n = int(input()) #5
2 c=0 #1,2,3,4
3 for i in range(1,n+1): #1,2,3,4,5,6
4     if n%i ==0: # 6%1==0 6%2==0
5         c+=1 # 1,2,3
6         # print(i)
7 if c == 2:
8     print(n, "is prime")
9 else:
10    print(n,"is not prime")
11
```

...

```
In [20]: 1 c = 25
2 if c==25:
3     print("yes")
```

yes

```
In [10]: 1 n = int(input()) #9
2 #c=0
3 for i in range(2,n+1): #2,3,4,5,6,7,8,9
4     if n==2:
5         print("prime")
6     elif n%i ==0: # 9%2==0
7         print(n, "is not prime")
8         break
9     elif n%i!=0:
10        print(n, "is prime")
11        break
```

9  
9 is prime

```
In [2]: 1 n = int(input()) #5
2 c=0
3 for i in range(2,n+1): #2,3,4,5
4     if n%i ==0:
5         c+=1
6 if c ==1:
7     print("prime")
8 else:
9     print("not prime")
10
```

...

In [ ]:

```
1 # 1,2,3,4,5
2 for i in range(1,6):
3     if i==1:
4         print("no 1")
5     elif i ==2:
6         print("no 2")
7     elif i ==3:
8         print("no 3")
9     elif i ==4:
10        print("no 4")
11    else:
12        print("no 5")
13
14
15
16
```