Q11

In [13]:
```
def factorial(n):
    fact=1
    if n<0:
        print('factorial not defined')
    elif n==0:
        print('factorial of 0 is 1')
    else:
        for i in range(1,n+1):
            fact=fact*i
        print('factorial of ',n,'=',fact)
```

In [16]:
```
import math
math.factorial(6)
```

Out[16]:
```
720
```

Q12

In [19]:
```
def number(n):
    if n>1:
        for i in range(2,n):
            if n%i==0:
                print('composite Number')
                break

        else:
            print('Prime Number')
    elif n==0 or 1:
        print('Neither a prime nor composite number')
```

In [27]:
```
number(79)
```

```
Prime Number
```

Q13

In [56]:
```
string =input('enter the string:')
string=string.casefold()
revstr=reversed(string)
if list(revstr)==list(string):
    print('Given string is a Palindrome')
else:
    print('Not a Palindrome')
```

```
enter the string:laptop
Not a Palindrome
```

Q14

In [62]:
```
def rightriangle(a,b,hyp):
    if hyp=='unknown':
        print('Third side=',math.sqrt(a**2+b**2))
    elif a=='unknown':
        print('Third side=',math.sqrt(hyp**2-b**2))
    elif b=='unknown':
        print('Third side=',math.sqrt(hyp**2-a**2))
```

In [63]:
```
rightriangle(3,4,'unknown')
```

```
Third side= 5.0
```

Q15

In [69]:
```
string=input('enter the string:')
counts={i:string.count(i) for i in set(string)}
print('Frequency of characters in the given string : \n',counts)
```

```
enter the string:characters
Frequency of characters in the given string :
 {'e': 1, 'a': 2, 's': 1, 't': 1, 'r': 2, 'c': 2, 'h': 1}
```

In [ ]:
```

```