In [6]:
```
#Ans 11.


num = int(input("Enter a number: "))
factorial = 1
if num < 0:
   print(" Factorial does not exist for negative numbers")
elif num == 0:
   print("The factorial of 0 is 1")
else:
   for i in range(1,num + 1):
       factorial = factorial*i
   print("The factorial of",num,"is",factorial)
```

```
Enter a number: 10
The factorial of 10 is 3628800
```

In [8]:
```
#Ans 12.

num = int(input("Enter a number: "))

if num > 1:
   for i in range(2,num):
       if (num % i) == 0:
           print(num,"is not a prime number")
           print(i,"times",num//i,"is",num)
           break
   else:
       print(num,"is a prime number")

else:
   print(num,"is not a prime number")
```

```
Enter a number: 10
10 is not a prime number
2 times 5 is 10
```

In [11]:
```
#Ans. 13

def isPalindrome(str):

    # Run loop from 0 to len/2
    for i in range(0, int(len(str)/2)):
        if str[i] != str[len(str)-i-1]:
            return False
    return True

s = "Dehi"
ans = isPalindrome(s)


if (ans):
    print("Yes")
else:
    print("No")
```

```
No
```

In [12]:
```
#Ans. 14

def pythagoras(opposite_side,adjacent_side,hypotenuse):
        if opposite_side == str("x"):
            return ("Opposite = " + str(((hypotenuse**2) - (adjacent_side**2))**0.5))
        elif adjacent_side == str("x"):
            return ("Adjacent = " + str(((hypotenuse**2) - (opposite_side**2))**0.5))
        elif hypotenuse == str("x"):
            return ("Hypotenuse = " + str(((opposite_side**2) + (adjacent_side**2))**0.5))
        else:
            return "You know the answer!"

print(pythagoras(3,4,'x'))
print(pythagoras(3,'x',5))
print(pythagoras('x',4,5))
print(pythagoras(3,4,5))
```

```
Hypotenuse = 5.0
Adjacent = 4.0
Opposite = 3.0
You know the answer!
```

In [16]:
```
#Ans. 15.
test_str = "GeeksforGeeks"
# using naive method to get count
# of each element in string
all_freq = {}

for i in test_str:
    if i in all_freq:
        all_freq[i] += 1
    else:
        all_freq[i] = 1
print ("Count of all characters in GeeksforGeeks is :\n "
                                        +  str(all_freq))
```

```
Count of all characters in GeeksforGeeks is :
 {'G': 2, 'e': 4, 'k': 2, 's': 2, 'f': 1, 'o': 1, 'r': 1}
```

In [ ]: