In [ ]:
```
# Q11 - Q15
```

In [ ]:
```
# ans11
```

In [1]:
```
num = 8
factorial = 1

if num <0:
    print(' factorial does not exist for negative numbers')
elif num ==0:
    print('factorial of 0 is 1')
else:
    for i in range (1,num+1):
        factorial = factorial*i
    print(' the factorial of',num,'is', factorial)
```

```
the factorial of 8 is 40320
```

In [2]:
```
# ans12
```

In [3]:
```
num = 5

if num > 1:
    print(' it is a prime num',num)
elif num <= 1:
    print(' it is not a prime number',num)
```

```
it is a prime num 5
```

In [ ]:
```
# ans13
```

In [8]:
```
my_str ='aman'

rev_str = reversed(my_str)

if list(my_str)== list(rev_str):
    print(' it is a palindrome')
else:
    print('it is not a palindrome')
```

```
it is not a palindrome
```

In [ ]:
```
# ans 14
```

In [1]:
```
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 [ ]:
```
# ans 15
```

In [9]:
```
string = 'harneet'
for i in string:
    frequency = string.count(i)
    print(str(i),':',str(frequency),end = ',')
```

```
h : 1,a : 1,r : 1,n : 1,e : 2,e : 2,t : 1,
```

In [ ]:
```

```

In [ ]:
```

```