

Q11. WRITE A PYTHON PROGRAM TO FIND THE FACTORIAL OF A NUMBER?

```
In [18]: # Python 3 program to find
# factorial of given number
def factorial(n):

    # single line to find factorial
    return 1 if (n==1 or n==0) else n*factorial(n-1);
#Driver Code
num = 5;
print("Factorial of",num,"is", factorial(num))
```

Factorial of 5 is 120

In [ ]: Q12. WRITE A PYTHON PROGRAM TO FIND WHETHER A NUMBER IS PRIME OR COMPOSITE?

```
In [1]: num = 11

if num > 1:

    flag=0
    for i in range(2,int(num/2)+1):

        # If num is divisible by any number between
        # 2 and n/2, it is not prime
        if (num % i) ==0:
            print(num, "is not a prime number")
            flag=1
            break
    if flag==0:
        print(num, "is a prime number")
    else:
        print(num, "is not a prime number")
```

11 is a prime number  
11 is a prime number  
11 is a prime number  
11 is a prime number

Q13. WRITE A PYTHON PROGRAM TO CHECK WHETHER A GIVEN STRING IS A PALINDROME OR NOT?

```
In [2]: s = "malayalam"

if s == s[::-1]:
    print("Yes")
else:
    print("No")
```

Yes

Q14. WRITE A PYTHON PROGRAM TO GET THE THIRD SIDE OF RIGHT- ANGLED TRIANGLE FROM TWO GIVEN SIDES?

```
In [24]: 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(2,5,'x'))
print(pythagoras(2,'x',6))
print(pythagoras('x',5,6))
print(pythagoras(2,5,6))
```

Hypotenuse =5.385164807134504

Adjacent = 5.656854249492381

Opposite = 3.3166247903554

You know the answer !

Q15. WRITE A PYTHON PROGRAM TO PRINT THE FREQUENCY OF EACH OF THE CHARACTERS PRESENT IN A GIVEN STRING?

```
In [3]: Str = "Mississippi"
freq = {}

for i in Str:
    if i in freq:
        freq[i]+=1
    else:
        freq[i] = 1

print(freq)
```

```
{'M': 1, 'i': 4, 's': 4, 'p': 2}
```

```
In [ ]:
```