Ans:1--------(C) % Ans:2--------(B) 0 Ans:3--------(C) 24 Ans:4--------(A) 2 Ans:5--------(D) 6 Ans:6--------(C) finally block will be exected no matter if try block raises an error or not Ans:7--------(A) It is used to raise an error Ans:8--------(C) In defining a generator Ans:9--------(A,C) variable can contain alphabet,number,underscore but can start with aplhabet and underscore Ans:10-------(A,B) Raise and Yeild are keywords

## Factorial

In [1]:
```
n=int(input("Enter a number of your choice: "))
n
fact=1

if n<0:
    print("Please enter a valid number.")

elif n==0:
    print("Factorial of Zero is: 0")

elif n==1:
    print("Factorial of 1 is : 1")

else:
    for i in range(1,n+1):
        fact=fact*i
    print("Factorial of",n,"is:",fact)
```

```
Enter a number of your choice: 6
Factorial of 6 is: 720
```

## Prime

In [122…
```
n=int(input("Enter a NUMBER of your Choice: "))
flag=False

if n<0:
    print("Enter a WHOLE Number.")

elif n==0:
    print("Neither PRIME Nor COMPOSITE")

elif n>1:
    for i in range(2,n):
        if(n%i==0):
            flag=True
            break

    if flag==True:
        print("Its a COMPOSITE NUMBER")
    else:
        print("Its a PRIME NUMBER")

else:
    pass
```

```
Enter a NUMBER of your Choice: 5
Its a PRIME NUMBER
```

## Right angled Triangle

In [83]:
```
import math
def side(b,p):        #for calculating hypotenuse
    a=b**2+p**2
    h=math.sqrt(a)
    return h

def side2(y,u):       #for calculating base,perpendicular
    v=y**2-u**2
    t=math.sqrt(v)
    return t
```

In [119…
```
a=int(input("Enter a number of your choice: "))
b=int(input("Enter a number of your choice: "))

q=side(a,b)
print("Hypotenuse is: ",round(q,2))


w=side2(a,b)
print("Base/Perpendicular is: ",round(w,2))
```

```
Enter a number of your choice: 3
Enter a number of your choice: 2
Hypotenuse is:  3.61
Base/Perpendicular is:  2.24
```

## Palindrome

In [120…
```
def funct(x):
    return x[::-1]

s=input("Enter a String: ")
s=s.casefold()
y=funct(s)

if s==y:
    print("Its a Palindrome")
else:
    print("OOPS!! Not a palindrome")
```

```
Enter a String: ram
OOPS!! Not a palindrome
```

## Frequency of chars in a string

In [5]:
```
i=input("Enter a String: ")
i=i.casefold()
y=len(i)
for k in range(y):
    r=i.count(i[k])
    print(i[k],"-----",r)
```

```
Enter a String: ram
r ----- 1
a ----- 1
m ----- 1
```

In [ ]:
```

```