In [ ]:

```
python_worksheet answers
1)c
2)B
3)C
4)A
5)D
6)C
7)A
8)C
9)A&C
10)D
```

In [6]:

```
def fact(n):
    return 1 if(n==1 or n==0) else n*fact(n-1);
num=5
print("factorial",num,"is",)
fact(num)
```

```
factorial 5 is
```

Out[6]:

```
120
```

In [ ]:

```
##prime number or not
Input=int(input("enter any number:"))
count=0
for Number in range(1,Input+1):
    Remainder=Input%Number
    if(Remainder==0):
        count=count+1
        if(count==1):
            print("the number is neither prime nor composite")
            if(count==2):
                print("the number is prime but not composite")
```

In [ ]:

```
##palindrome or not
my_str = 'NAN'
my_str=my_str.casefold()
rev_str=reversed(my_str)
if list(my_str)==list(rev_str):
    print("the string is a palindrome")
```

In [12]:

```
import math as mt
def third_side(a,b,c):
    return mt.sqrt((a*a)+(b*b)-2*a*b*mt.cos(c))
c=37
a,b=8,11
print(third_side(a,b,c))
```

```
7.091341682475861
```

In [ ]:

```
## frequency of string
from collections import Counter
test_str="timeofeffort"
res=Counter(test_str)
print("count of all characters in timeofeffort is :\n"+str(res))
```

In [ ]: