Practice Questions:

In [10]:
```
# Function to print the number closest to zero in array (if multiple numbers
li=[-1,-2,2,-3,1]
li.sort()
li
pl=[]
for i in li:
    pl.append (abs(i))

pl.sort()
if pl[0] in li:
    print (pl[0])
else:
    print (-pl[0])
```

```
1
```

In [1]:
```
# Function to print the number farest to zero in array (if multiple numbers
li=[-1,-2,2,-3,1]
li.sort()
li
pl=[]
for i in li:
    pl.append (abs(i))

pl.sort()
if pl[0] in li:
    print (-pl[0])
else:
    print (pl[0])
```

```
-1
```

Problem-3

- You are given three numbers a,b,c.
- Write a program to find the largest number
- Which is less than or equl to c and leaves
- remainder b when divided by a

In [7]:
```
def cal(a,b,c):
    for i in range(c,a-1,-1):
        if i % a == b:
            return i
    return -1

cal(1,2,4)
```

Out[7]:
```
-1
```

In [ ]:
```
1
```

Basic Problem set on Hacker Earth (Basic I/O category

- Count Divisors
- Factorial
- Toggle String
- Palindrome

In [16]:
```
## You have been given 3 integers - l, r and k. Find how many numbers betwee
##(both inclusive) are divisible by k.
## You do not need to print these numbers, you just have to find their count

def countdivisor(i,j,k):
    count=0
    for n in range(i,j+1):
        if n % k==0:
            count+=1
    return count

s=input()
s=s.split()
for n in s:
    i=int(s[0])
    j=int(s[1])
    k=int(s[2])

countdivisor(i,j,k)

```

```
1 10 1
```

Out[16]:
```
10
```

In [3]:
```
def countdivisor(i,j,k):
    count=0
    for n in range(i,j+1):
        if n % k==0:
            count+=1
    return count
countdivisor(1,10,1)
```

Out[3]:
```
10
```

In [2]:
```
# You have been given a positive integer N.
# You need to find and print the Factorial of this number.
# The Factorial of a positive integer N refers to the
# product of all number in the range from 1 to N.
# You can read more about the factorial of a number

def factorial(n):
    count=1
    for i in range(n,0,-1):
        count=count*i
    print(count)
factorial(5)

```

```
120
```

In [1]:
```
# You have been given a String S consisting of uppercase and lowercase Engli
# You need to change the case of each alphabet in this String.
# That is, all the uppercase letters should be converted to lowercase and
# all the lowercase letters should be converted to uppercase.
# You need to then print the resultant String to output.

k=input()
for i in k:
    if i.isupper():
        print (i.lower(),end="")
    else:
        print(i.upper(),end="")
```

```
RenUkA
rENuKa
```

In [3]:
```
# You have been given a String S. You need to find and print whether
# this string is a palindrome or not.If yes, print "YES" (without quotes),
# else print "NO" (without quotes).

def stringpalindrome(s):
    if s==s[::-1]:
        print("YES")
    else:
        print("NO")

s=input()
stringpalindrome(s)
```

```
madam
YES
```

In [3]:

```
n=int(input())
def twostring(s,t):
    f=1
    if len(s)!=len(t):
        return "NO"
    else:
        for i in range(len(s)):
            if s.count(s[i])!=t.count(s[i]):
                return "NO"
        if f==1:
            return "YES"
for i in range(n):
    st=input().split()
    s=st[0]
    t=st[1]
    print (twostring(s,t))
```

```
2
sumit mitsu
YES
book kobo
YES
```

In [13]:

```
def duration(starthr,startmin,endhr,endmin):
    a=(starthr*60)+startmin
    b=(endhr*60)+endmin
    differ=b-a
    hr=differ//60
    min=differ%60
    print(hr,end=" ")
    print(min,end=" ")

duration(2,42,8,23)
```

```
5 41
```

In [14]:
```
def duration(sh,sm,eh,em):
    a=(sh*60)+sm
    b=(eh*60)+em
    differ=b-a
    hr=differ//60
    min=differ%60
    print(hr,min)


n=int(input())
for i in range(n):
    s=input().split()
    sh=int(s[0])
    sm=int(s[1])
    eh=int(s[2])
    em=int(s[3])
    duration(sh,sm,eh,em)
```

```
2
1 44 2 14
0 30
2 42 8 23
5 41
```

In [ ]:
```
1
```