14th Evening Exam

In [1]:
```
# Sum of squares of the given N natural numbers

n=int(input())
def sumSquaresNaturalNumbers(n):
    sum=0
    for i in range(1,n+1):
        sum=sum+i**2
    return sum
sumSquaresNaturalNumbers(n)
```

```
3
```

Out[1]:
```
14
```

In [ ]:
```

```

In [18]:
```
# You have been given integer array A and size N, then you need to print the v
alue of the element which is closest to zero, if multiple candidates are prese
nt the print then largest value

n=int(input())
s=input()
s=s.split()
li=[]
for i in s:
    li.append(int(i))
def closestZero(li):
    if 0 in li:
        return 0
    else:
        li.sort()
        pc=[]
        nc=[]
        for i in li:
            if i>0:
                pc.append(i)
            else:
                nc.append(i)
        if len(nc)==0:
            return min(pc)
        elif len(pc)==0:
            return max(nc)
        else:
            nz=max(nc)
            pz=min(pc)
            if abs(nz)>pz or abs(nz)==pz:
                return pz
            else:
                return nz
closestZero(li)
```

```
3
122 100 3
```

Out[18]: 3

OR

In [10]:
```
li=[-24, 5, 14, -1]
li.sort()
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 [14]:
```
# You have been given integer array A and size N, then you need to print the v
alue of the element which is closest to zero, if multiple candidates are prese
nt the print then lesser value

li=[-24, -5, 2, -3]
li.sort()
pl=[]
for i in li:
    pl.append(abs(i))
pl.sort()
if -pl[0] in li:
    print(-pl[0])
else:
    print(pl[0])
```

```
2
```

In [17]:
```
# You have been given integer array A and size N, then you need to print the v
alue of the element which is far to zero, if multiple candidates are present t
he print then greater value


li=[-14, 5, 14, -100]
li.sort()
pl=[]
for i in li:
    pl.append(abs(i))
pl.sort()
if pl[-1] in li:
    print(pl[-1])
else:
    print(-pl[-1])
```

```
-100
```

In [22]:
```
# You are given 3numbers a,b, and c. Write a program to find the largest numbe
r which is less than or equal to c and leaves remainder b when divided by a.
        # Ex: 3 2 9 -->  9%3==0 so reduce c then  8%3==2


def cal(a,b,c):
    for i in range(c,a-1,-1):
        if i % a ==b:
            return i
    return -1
cal(3,1,50)
```

Out[22]: 49

In [ ]:

In [ ]:

In [ ]:

In [ ]: