

Найти третий по величине элемент массива

```
a=[9,321,1,5,7,8,0,5,3]
```

```
n=1
```

```
c=0
```

```
d=a[0]
```

```
e=0
```

```
while n<len(a):
```

```
    if a[n]>e:
```

```
        if a[n]>c:
```

```
            if a[n]>d:
```

```
                e=c
```

```
                c=d
```

```
                d=a[n]
```

```
            else:
```

```
                e=c
```

```
                c=a[n]
```

```
        else:
```

```
            e=a[n]
```

```
    n+=1
```

```
print(e)
```

нормальный подход для массива
сортировка по возрастанию
в упорядоченном 10-ый легко найти

идет вместо массива поток данных
найти 100-ый по величине элемент в
потоке данных - **надо подумать**

```
n=int(input())#n=1000 000 000
```

```
while n>0:
```

```
    x=int(input())
```

```
    ...
```

```
    n-=1
```

```
12,15,3,1,5,6,9,0,4,213,124,124,123,41,23,412,34,21,34,123,4,12
```

```
order=5
```

```
ms=[]
```

```
[12]
```

```
[12,15]
```

```
[12,15,3]->[3,12,15]
```

```
[3,12,15,1]->[1,3,12,15]
```

```
[1,3,12,15,5]->[1,3,5,12,15]
```

```
[1,3,5,12,15,6]->[1,3,5,6,12,15]->[3,5,6,12,15,0]
```

```
[3,5,6,12,15,9]->[3,5,6,9,12,15]->[5,6,9,12,15,0]
```

```
n=int(input())#n=1000 000 000
```

```
order=5
```

```
ms=[]
```

```
while n>0:
```

```
    x=int(input())
```

```
    if len(ms)<order+1:
```

```
        ms.append(x)
```

```
        d=len(ms)-1
```

```
        while d>0 and ms[d-1]>ms[d]:
```

```
            temp=ms[d]
```

```
            ms[d]=ms[d-1]
```

```
            ms[d-1]=temp
```

```
            d-=1
```

```
    else:
```

```
        i=0
```

```
        while i<len(ms)-1:
```

```
            ms[i]=ms[i+1]
```

```
            i+=1
```

```
        ms[order]=x
```

```
        d=len(ms)-1
```

```
        while d>0 and ms[d-1]>ms[d]:
```

```
            temp=ms[d]
```

```
            ms[d]=ms[d-1]
```

```
            ms[d-1]=temp
```

```
            d-=1
```

```
    print(ms)
```

```
    n-=1
```

```
print(ms[1])
```

