

```
function maxheapinsert(int a[],int i,int n)
```

```
    a[i]=-1
```

```
    a[i]=n
```

```
    while(i>0 and a[(i-1)/2]<a[i])
```

```
        int c=a[i]
```

```
        a[i]=a[(i-1)/2]
```

```
        a[(i-1)/2]=c
```

```
function heapify(int a[],int numbag,int i)
```

```
    int l=(2*i)+1,r=(2*i)+2,largest
```

```
    if(l<numbag and a[l]>a[i])
```

```
        largest=l
```

```
    else
```

```
        largest=i
```

```
    if(r<numbag and a[r]>a[largest])
```

```
        largest=r
```

```
    if(largest!=i)
```

```
        int c=a[i]
```

```
        a[i]=a[largest]
```

```
        a[largest]=c
```

```
        heapify(a,numbag,i)
```

```
function eat(int a[],int numbag)
```

```
    a[0]=a[0]/2
```

```
    heapify(a,numbag,0)
```

```
function main()
```

```
    int numbag,pick,n,choc[1]
```

```
    choc[0]=0
```

```
    read(numbag)
```

```
    read(pick)
```

```
    int a[numbag]
```

```
    for(i=0 to numbag )
```

```
        read(n)
```

```
        maxheapinsert(a,i,n)
```

```
    for( i=0 to pick)
```

```
        choc[0]=choc[0]+a[0]
```

```
        for j=0 to numbag
```

```
            print a[j]
```

```
        eat(a,numbag)
```

```
    Print choc[0]
```

