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

read(numbag)

read(pick)

int a[numbag]

for(i=0 to numbag )

read(n)

maxheapinsert(a,i,n)

for( i=0 to pick)

eat(a,numbag)

for j=0 to numbag

print a[j]