

図番 N=7

0 1 2 3 4 5 6

1 64 34 25 12 22 11 90

heapsort

作成 i=2 N=7 l=2

2 heapify Largest=2 left=5 right=6

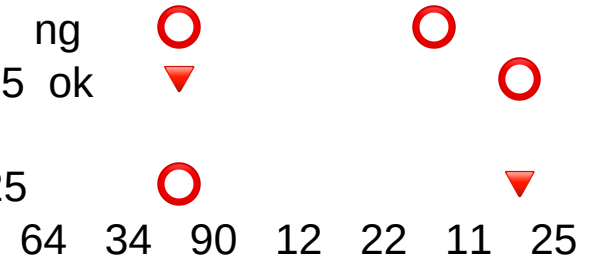
If Arr[left]=arr[5]=11 arr[largest]=arr[2]=25 ng

If Arr[right]=arr[6]=90 arr[largest]=arr[2]=25 ok

largest=right=6

max arr[largest]=arr[6]=90 arr[i]=arr[2]=25

入替



3 l=1 N=7 l=1 Largest=1 left=3 right=4

heapify If Arr[left]=arr[3]=12 arr[largest]=arr[1]=34 ng

If Arr[right]=arr[4]=22 arr[largest]=arr[1]=34 n



4 l=0 n=7 l=0 Largest=0 left=1 right=2

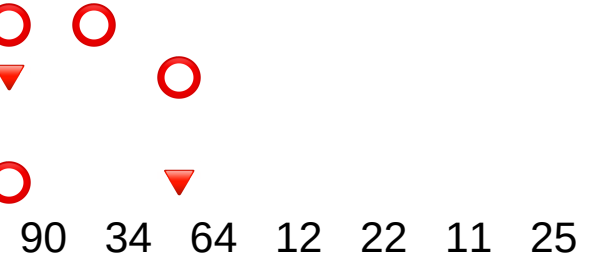
heapify If Arr[left]=arr[1]=34 arr[largest]=arr[0]=64

If Arr[right]=arr[2]=90 arr[largest]=arr[0]=

largest=right=2

max arr[largest]=arr[2]=90 arr[i]=arr[0]=

入替



5 取出し l=6 N=6 i=0 Arr[0]=90 arr[6]=25



入替

25 34 64 12 22 11 90

6

N=6 i=0 Largest=0 left=1 right=2

heapify If Arr[left]=arr[1]=34 arr[largest]=arr[0]=25

largest=left=1

If Arr[right]=arr[2]=64 arr[largest]=arr[1]=34

largest=right=2

max arr[largest]=arr[2]=64 arr[i]=arr[0]=25

入替

64 34 25 12 22 11 90

7

N=6 i=2 Largest=2 left=5 right=6

heapify If Arr[left]=arr[5]=11 arr[largest]=arr[2]=25

right nop

8

i=5 N=5 i=0 Arr[0]=64 arr[i]=arr[5]=11

入替

11 34 25 12 22 64 90

9

N=5 i=0 Largest=0 left=1 right=2

heapify If Arr[left]=arr[1]=34 arr[largest]=arr[0]=11

largest=left=1

If Arr[right]=arr[2]=25 arr[largest]=arr[1]=34

max arr[largest]=arr[1]=34 arr[i]=arr[0]=11

入替

34 11 25 12 22 64 90

10

N=5 i=1 Largest=1 left=3 right=4

heapify If Arr[left]=arr[3]=12 arr[largest]=arr[1]=11 ok

largest=left=3

If Arr[right]=arr[4]=22 arr[largest]=arr[3]=12 ok



largest=right=4

max arr[largest]=arr[4]=22 arr[i]=arr[1]=11

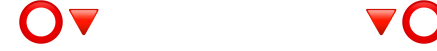


入替

34 22 25 12 11 64 90

11

i=4 N=4 i=0 Arr[0]=34 arr[i]=arr[4]=11



入替

11 22 25 12 34 64 90

12

N=4 i=0 Largest=0 left=1 right=2

heapify If Arr[left]=arr[1]=22 arr[largest]=arr[0]=11



largest=left=1

If Arr[right]=arr[2]=25 arr[largest]=arr[1]=22



largest=right=2

max arr[largest]=arr[2]=25 arr[i]=arr[0]=11



入替

25 22 11 12 34 64 90

13

N=4 i=2 Largest=2 left=5 right=6

heapify nop

nop

14

i=3 N=3 i=0 Arr[0]=25 arr[i]=arr[3]=12



入替

12 22 11 25 34 64 90

15



N=3 i=0 Largest=0 left=1 right=2

heapify If Arr[left]=arr[1]=22 arr[largest]=arr[0]=12



largest=left=1

If $arr[right]=arr[2]=11$ $arr[largest]=arr[1]=22$ n  





max $arr[largest]=arr[1]=22$ $arr[i]=arr[0]=$  

入替 22 12 11 25 34 64 90

16 N=3 i=1 Largest=1 left=3 right=4
heapify nop
nop


17 I=2 N=2 i=0 $arr[0]=22$ $arr[i]=arr[2]=11$
入替

   
11 12 22 25 34 64 90

18 N=2 i=0 Largest=0 left=1 right=2
heapify If $arr[left]=arr[1]=12$ $arr[largest]=arr[0]=11$  
largest=left=1
nop
max $arr[largest]=arr[1]=12$ $arr[i]=arr[0]=$  
入替

12 11 22 25 34 64 90

19 I=1 N=1 i=0 $arr[0]=12$ $arr[i]=arr[1]=11$
入替

 
11 12 22 25 34 64 90

N=1 i=0 Largest=0 left=1 right=2
heapify nop
nop