In DecreaseKey(H, x, k):

DecreaseKey(H, x, k) – If the node of H with key `x' is at least `k', then decreases the value of node with key `x' by `k'. If x is not present in Heap H1, then print -1.

In input format:

p 1 - prints the root list of binomial heap H1.
p 2 - prints the root list of binomial heap H2.
u - combine two heaps (H1 and H2) and print the root list.

Input:

i 10
i 20
i 30
i 40
i 50
p 1
m
x
p 1
r 50 46
p 1
r 70 5
j 60
j 70
j 80
p 2
u
e

Output:

50 10
10
10
20
46
20
-1
80 60
80 60 20