

### Sample Input File:

(Create,H), (Trace,H,true), (Insert,H,2), (Insert,H,10), (Insert,H,5), (Insert,H,25), (Insert,H,3),  
(Findmin,H), (Extractmin,H), (Decreasekey,H,25,10), (Insert,H,40), (Create,Y), (Trace,Y,true),  
(Insert,Y,70), (Insert,Y,62), (Insert,Y,19), (Insert,Y,45), (Extractmin,Y), (Merge,H,Y,k), (Display,k)

### Result:

#### Heap H:

**Insert:** 2, 10, 5, 25, 3

(2()->10()->5()->25()->3()->)

**Findmin:** 2

**Extractmin:**

(3(5(10()->)->25()->)->)

**Decreasekey** (25,10)

(3(5(10()->)->10()->)->)

**Insert:** 40

(3(5(10()->)->10()->)->40()->)

#### Heap Y:

**Insert:** 70, 62, 19, 45

(19()->62()->70()->45()->)

**Extractmin:**

(45()->62(70()->)->)

#### Heap k:

**Merge** H,Y,K

(3(5(10()->)->10()->)->40()->45()->62(70()->)->)

### Command Line Interface:

1. Create Heap
2. Insert
3. Merge heaps
4. Find minimum element
5. Extract minimum element
6. Decrease Key
7. Free Heap
8. Display heap
9. Trace
10. Exit