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Binomial heap \rightarrow delete & decrease

Decrease.

Decrease key is compared with its parent and if parent key is more, we swap keys and recur for parent. we stop when we either reach a node where parent has smaller key.

f₂ : void decreaseKey B heap (node * n, int old_val, int new_val)

```
node * node = findNode (n, old_val);  
if (node == NULL)  
    return;
```

```
node  $\rightarrow$  val = new_val;
```

```
node * parent = node  $\rightarrow$  parent;
```

```
while (parent  $\rightarrow$  val > node  $\rightarrow$  val)  
{
```

```
    swap (node  $\rightarrow$  val, parent  $\rightarrow$  val);
```

```
    node = parent;
```

```
    parent = parent  $\rightarrow$  parent;
```

```
}
```

```
}
```

Decrease

first reduce the key to minus infinity
and then call extractMin() function.

FN :

if (h == null)

return null;

decreasekeyheap (h, val, INT_MIN)

return extractMinHeap (h);

3.