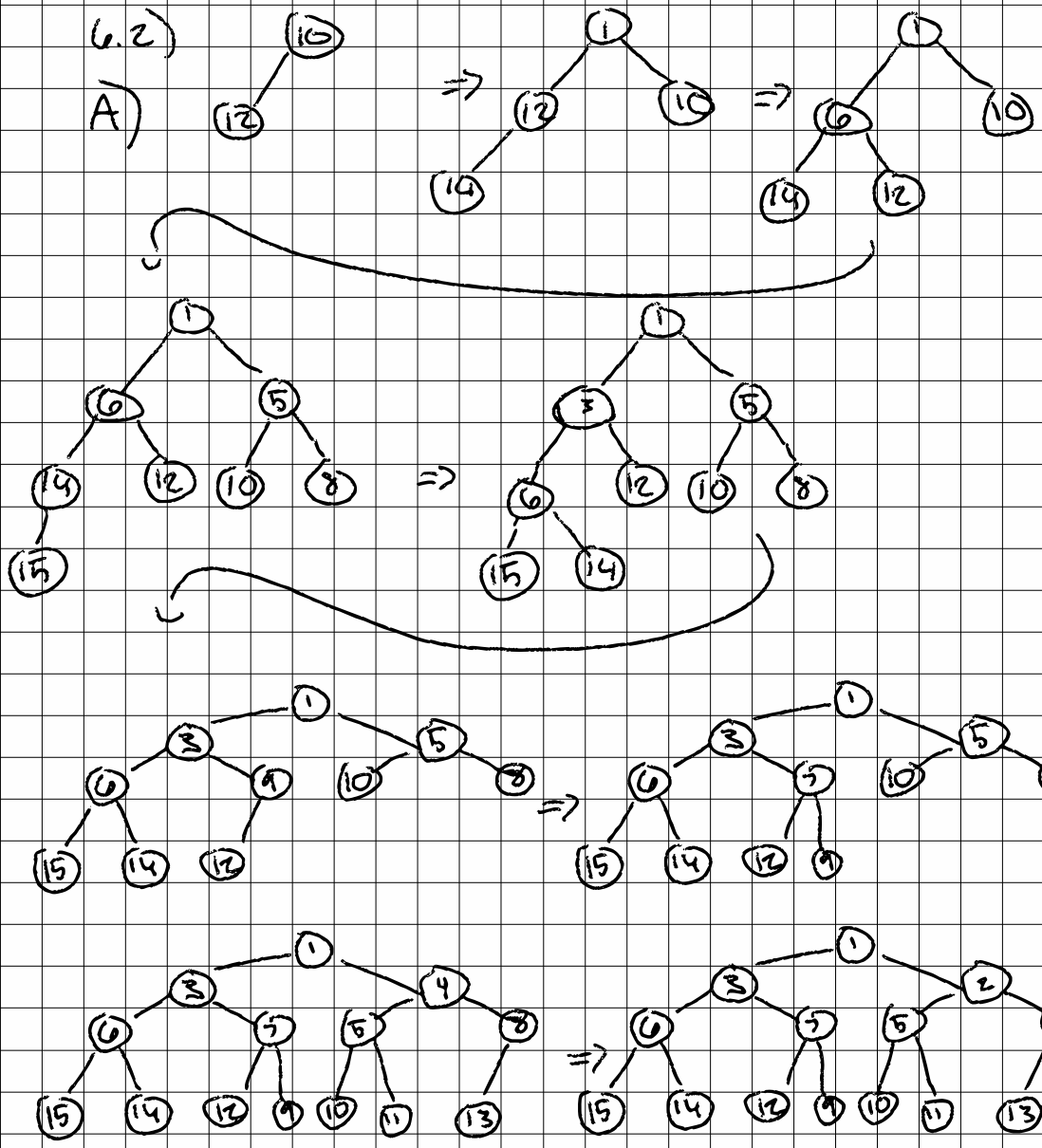
William Shelley HW5 H/R:

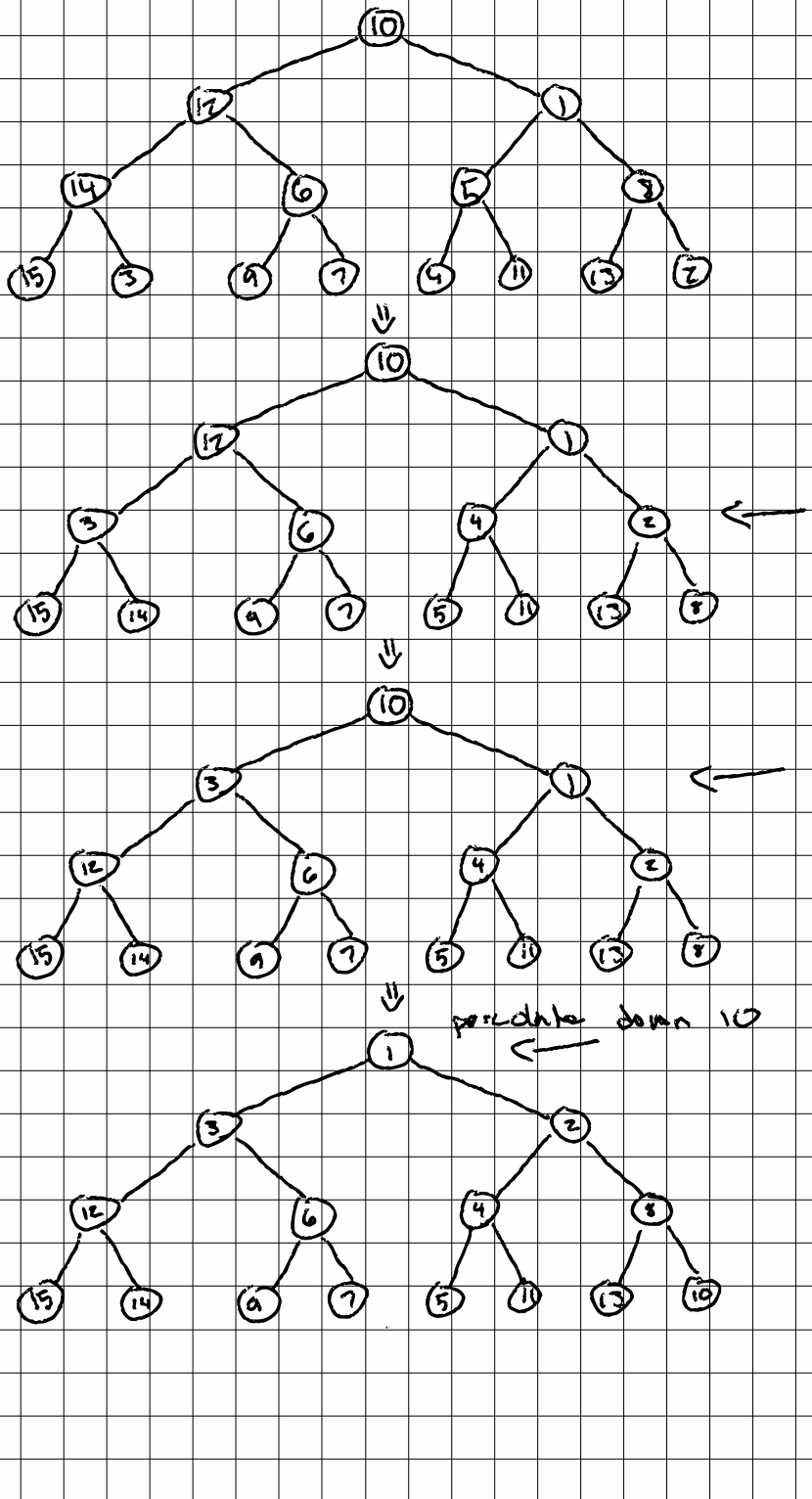
6.2)

A)

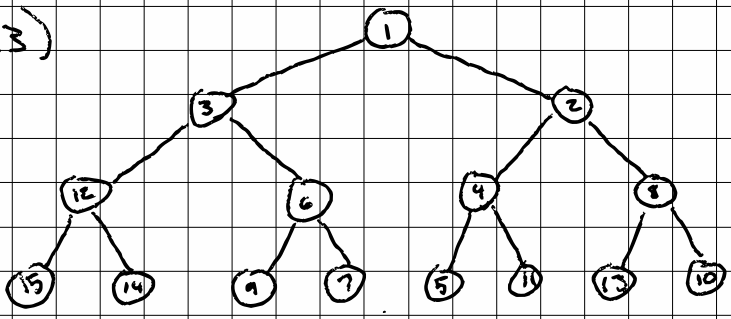


6.2)

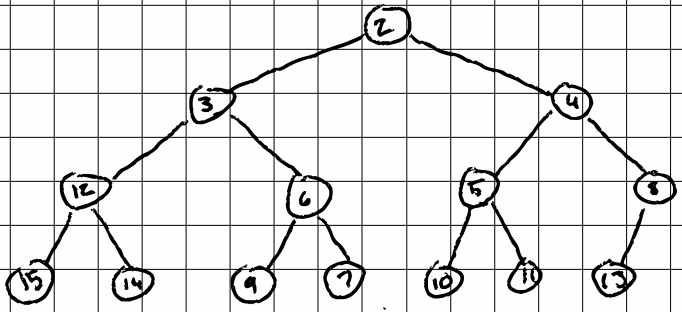
B)


10
17
1
14
6
5
3
15
3
9
7
4
11
13
2
10
17
1
3
6
4
2
15
14
9
7
5
11
13
8
10
3
1
12
6
4
2
15
14
9
7
5
11
13
8
percolate down 10
1
3
2
12
6
4
8
15
14
9
7
5
11
13
10

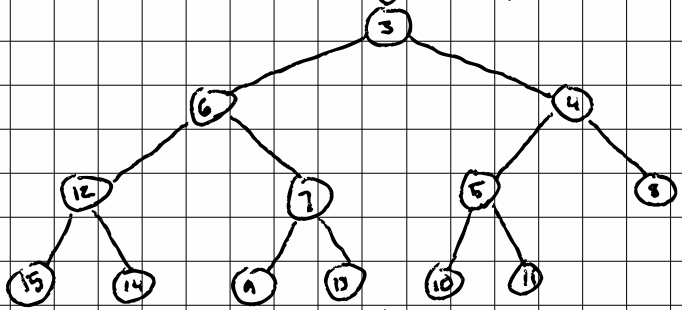
6.3)



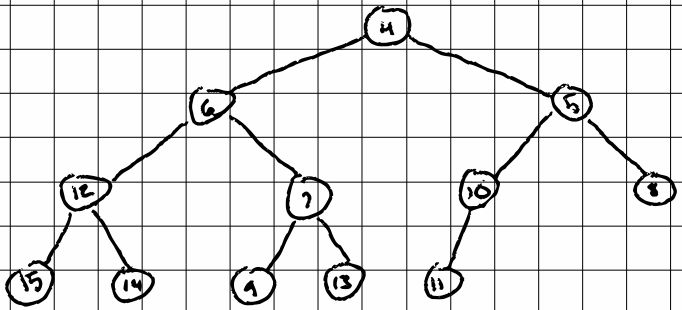
// deleteMin()



// deleteMin()

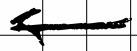


// deleteMin()



6.5)

```
public void insert(AnyType x) {
    if (currentSize == array.length) {
        enlargeArray(array.length * 2 + 1);
    }
    int hole = ++currentSize;
    for(; x.compare(array[hole/2]) < 0; hole /= 2) {
        array[hole] = array[hole/2];
    }
    array[hole] = x;
    array[0] = x;
}
```



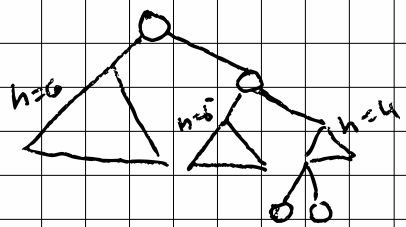
6.6)

Max nodes $= 2^{n+1} - 1$

$n = 7 \qquad 2^8 - 1 = 256 - 1 = 255$

$255 - 3 = 252$

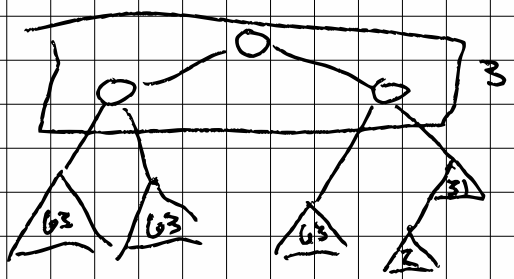
$252 / 4 = 63$



$(2^7 - 1) + (2^6 - 1) + (2^5 - 1) + 4$

$= 225$

$2^{4+1} - 1 = 31$



$63 \times 3 = 189 + 31 = 220$

$220 + 2 = 222$

$222 + 3 = 225$