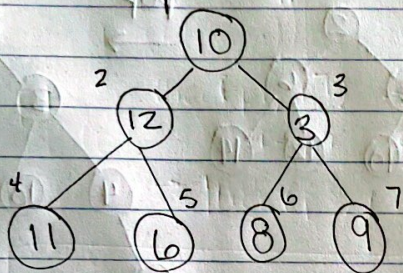


# HW3 - Written Problems

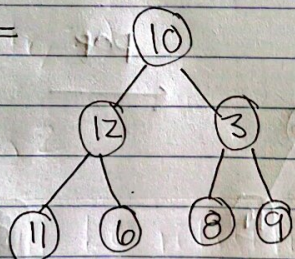
Part 4(a)

Initial: [10, 12, 3, 11, 6, 8, 9]

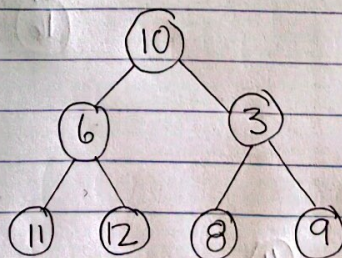


Step 1: First non-leaf node in this step

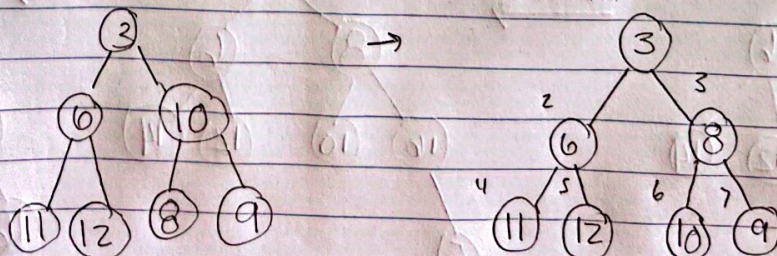
heapify(3) =



heapify(2) =



heapify(1) =

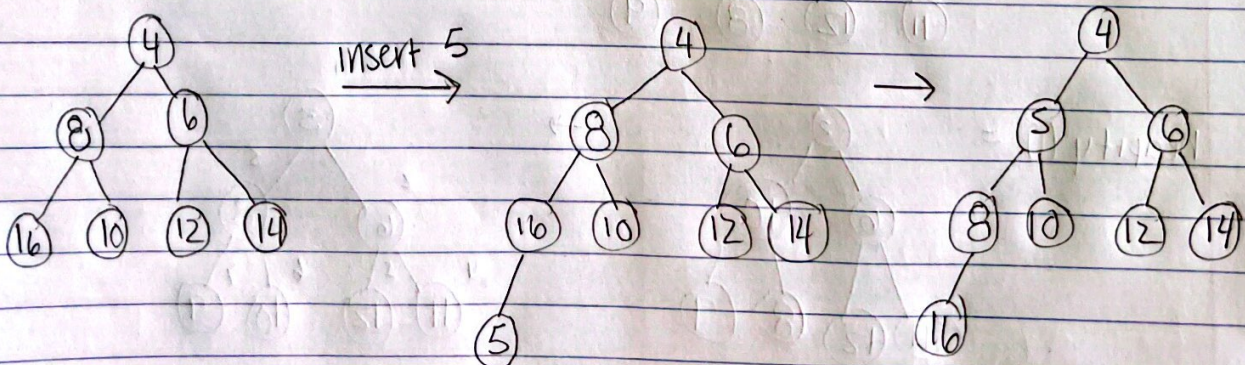
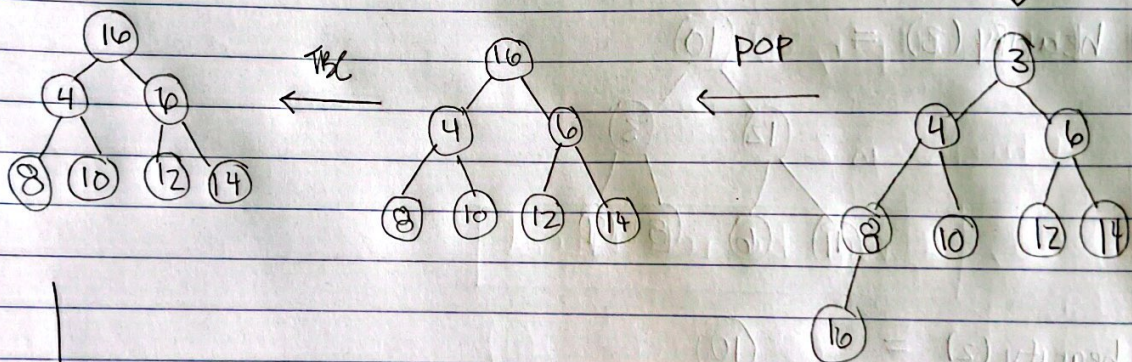
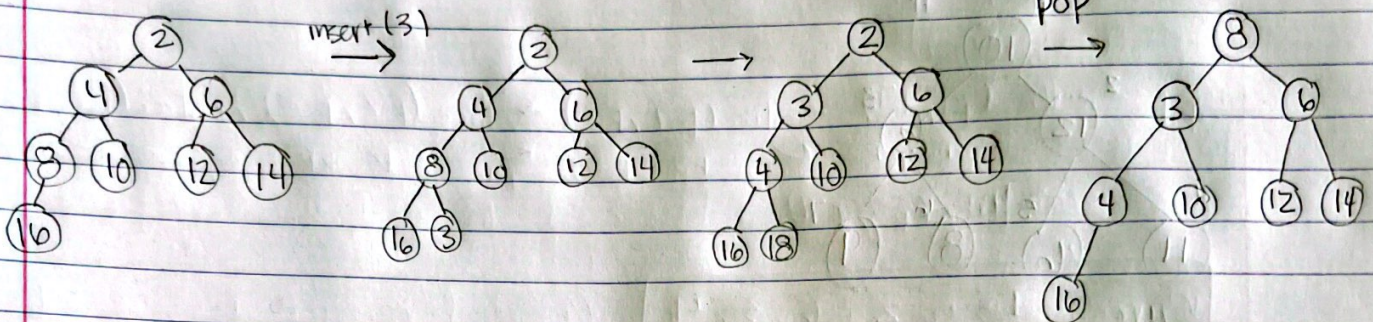


Final: [3, 6, 8, 11, 12, 10, 9]



# Part 4b

Initial: [2, 4, 6, 8, 10, 12, 14, 16]



Final: [4, 5, 6, 8, 10, 12, 14, 16]