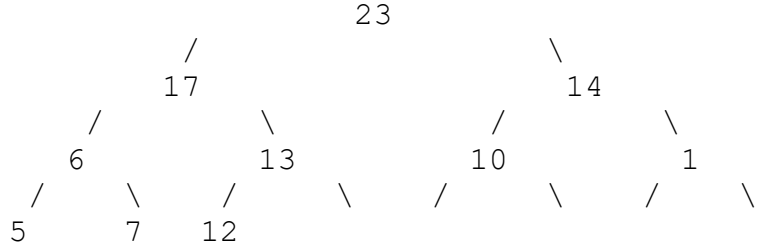
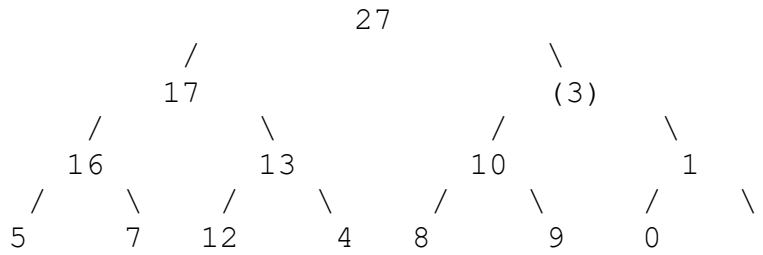
**2-Cormen)** A sequência <23, 17, 14, 6, 13, 10, 1, 5, 7, 12> é um heap máximo? Este exercício e os demais abaixo devem ser entregues como um pdf.

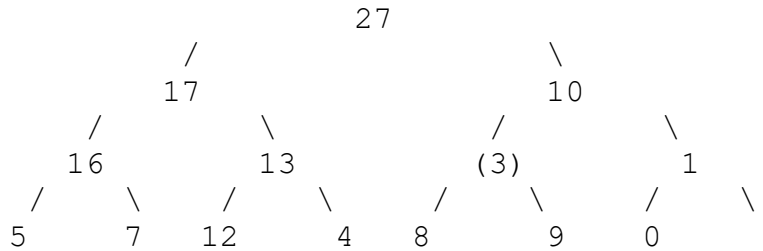
Sim, a sequência é um heap máximo



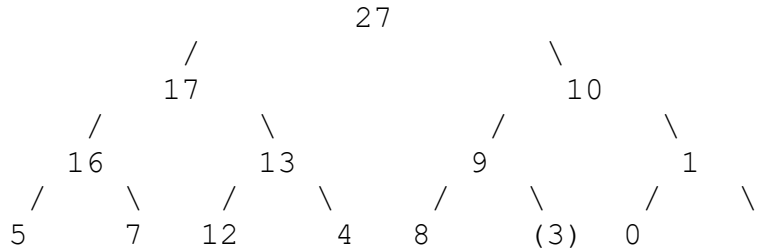

**3-Cormen)** Usando o exemplo abaixo como modelo (que simula a execução de uma operação Max-Heapify(V, 2)), ilustre a operação Max-Heapify(V, 3) sobre o arranjo V = <27, 17, 3, 16, 13, 10, 1, 5, 7, 12, 4, 8, 9, 0>. Na notação do livro base usado nessa disciplina, o índice do primeiro elemento do vetor começa em 1 e não em 0!



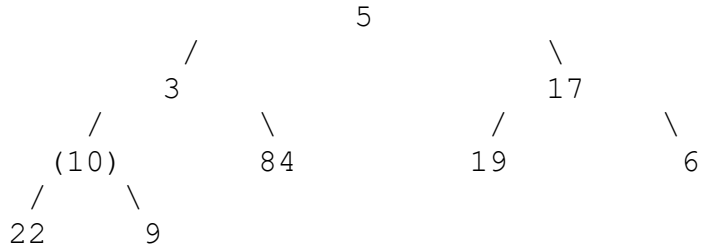

**3 <-> 10**



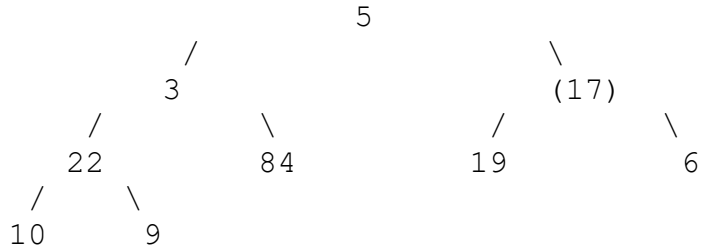

**3 <-> 9**



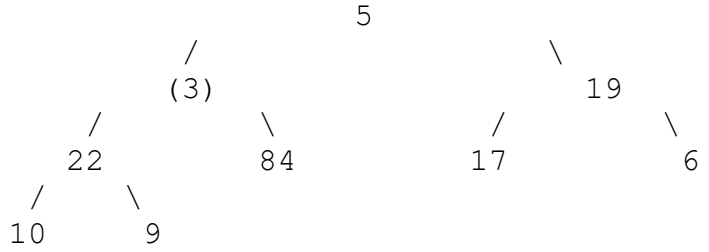
**4-Cormen)** Usando o exemplo abaixo como modelo (que simula a execução de uma operação Build-Max-Heap), ilustre a operação Build-Max-Heap sobre o arranjo V = <5, 3, 17, 10, 84, 19, 6, 22, 9>. Na nota¸cão do livro base usado nessa disciplina, o índice do primeiro elemento do vetor começa em 1 e não em 0!



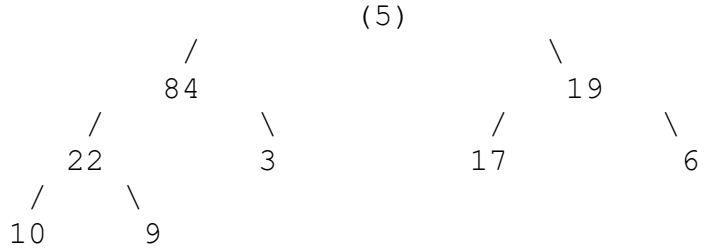

**1) 10 <-> 22**



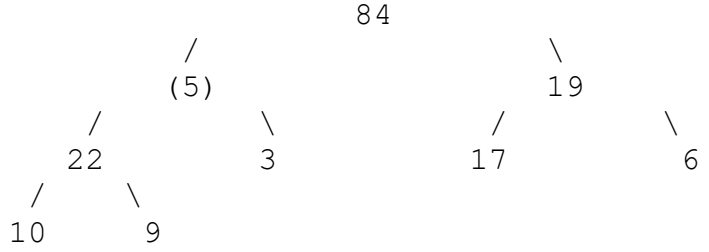

**2) 17 <-> 19**



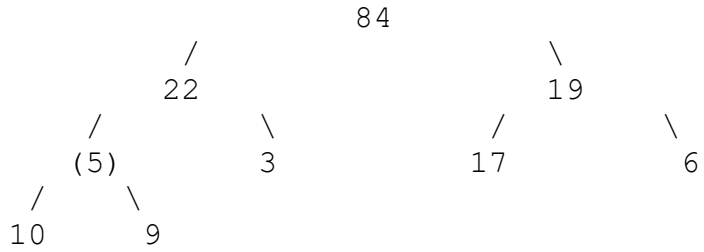

**3) 3 <-> 84**



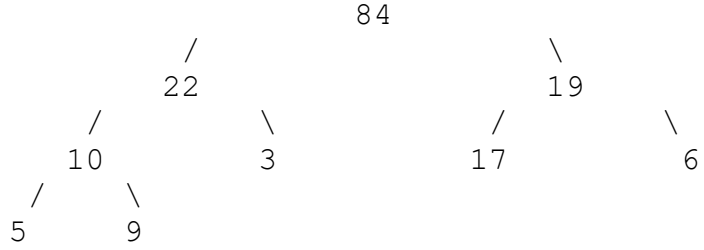

**4) 5 <-> 84**



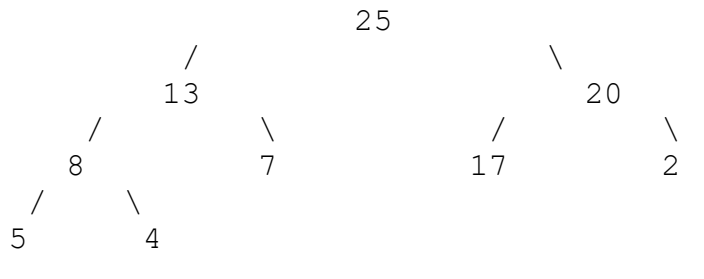
**5)  5 <-> 22**

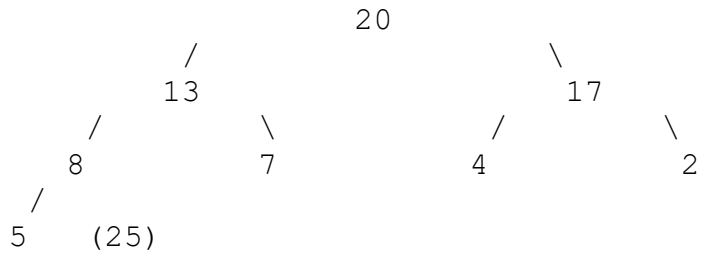


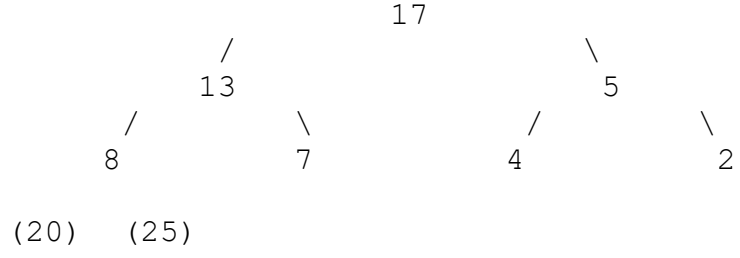

**6)  5 <-> 10**

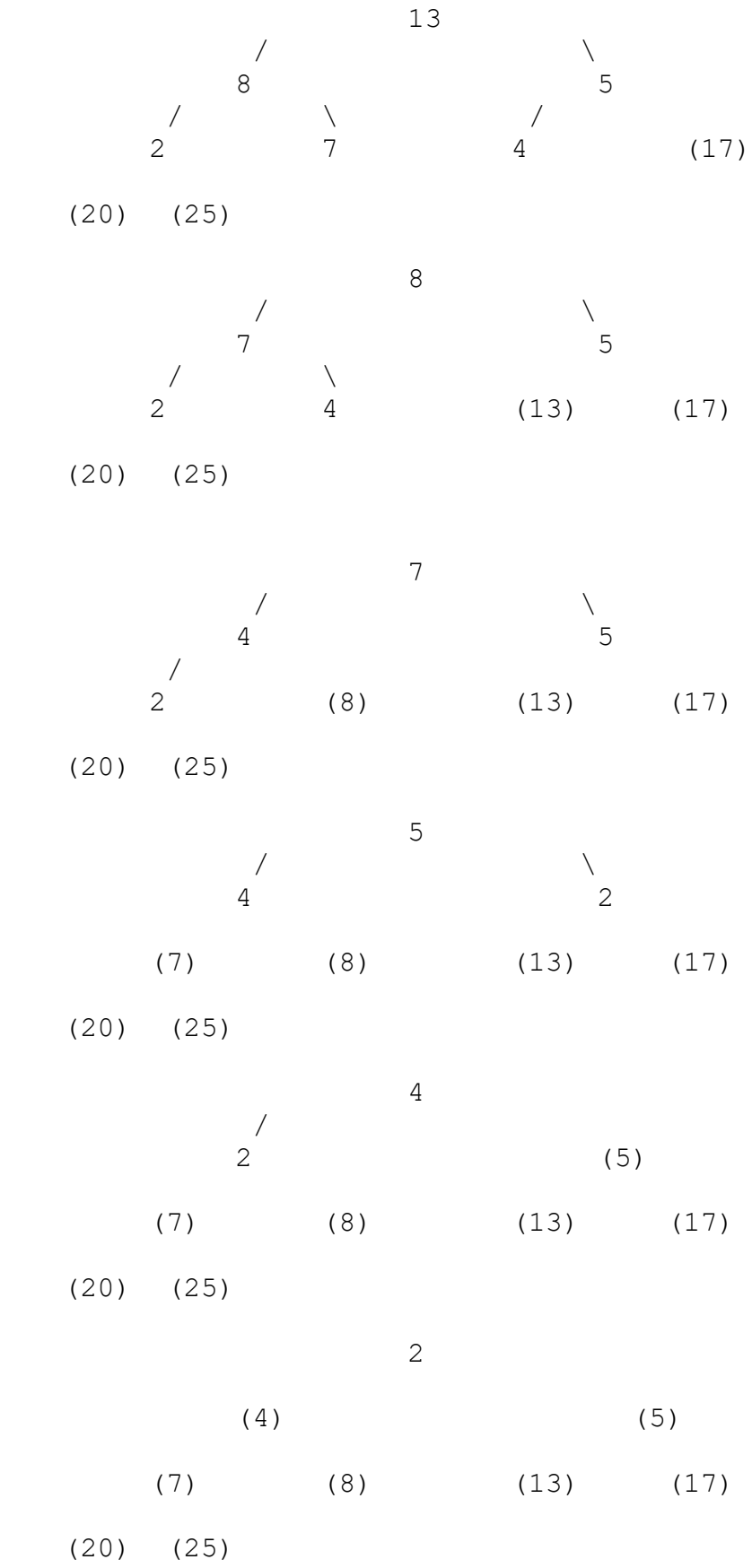



**5-Cormen)** Usando o exemplo abaixo como modelo (que simula a execução do algoritmo Heap-Sort), ilustre a operação do Heap-Sort sobre o arranjo V = <5, 13, 2, 25, 7, 17, 20, 8, 4>.






2 - 4 - 5 - 7 - 8 - 13 - 17 - 20 - 25