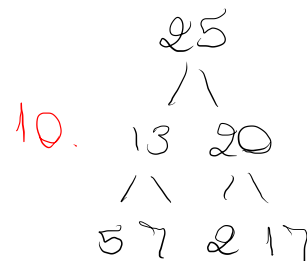
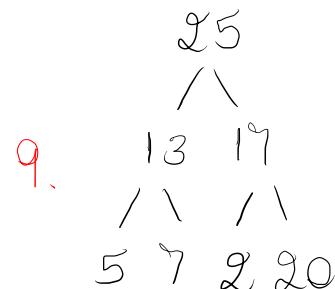
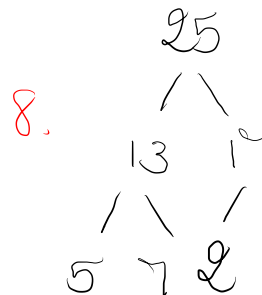
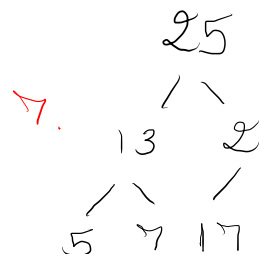
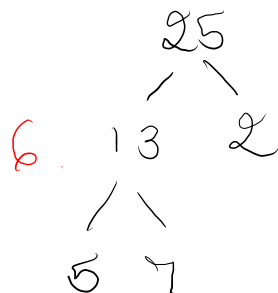
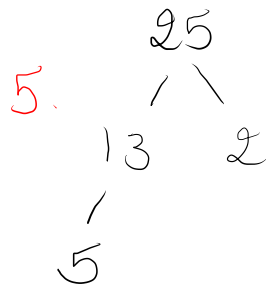
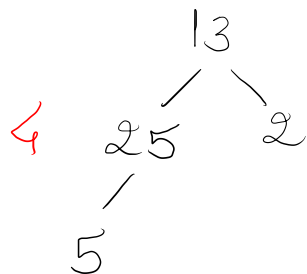
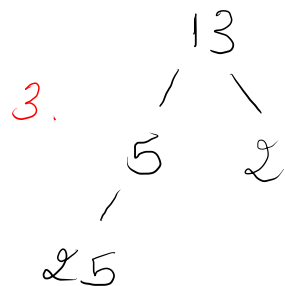
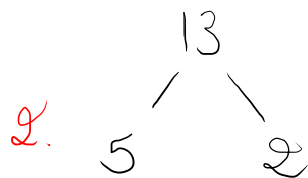
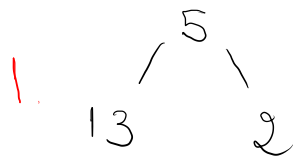
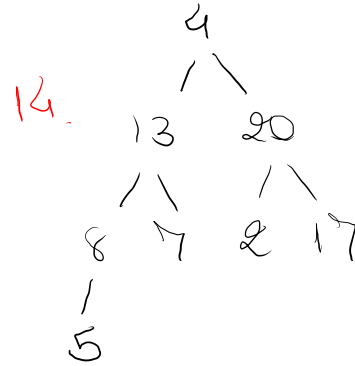


4. Ilustre a operação de HEAPSORT sobre o arranjo $A = \langle 5, 13, 2, 25, 7, 17, 20, 8, 4 \rangle$.

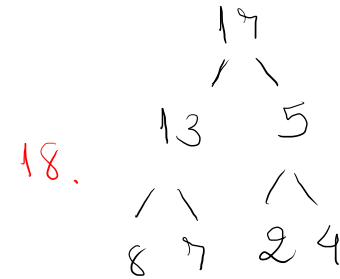
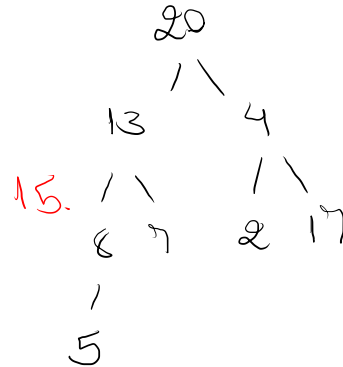
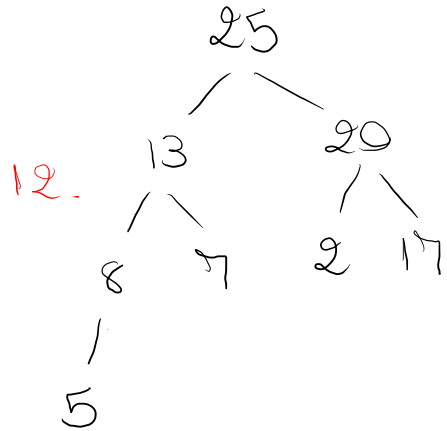
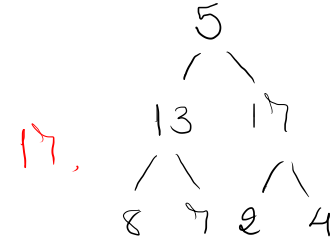




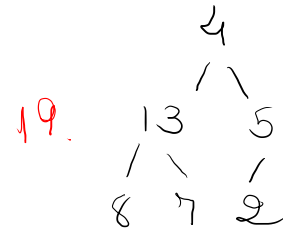
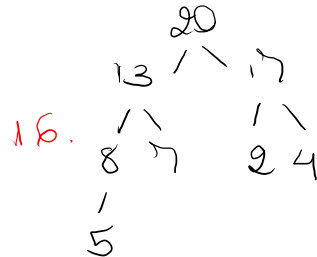
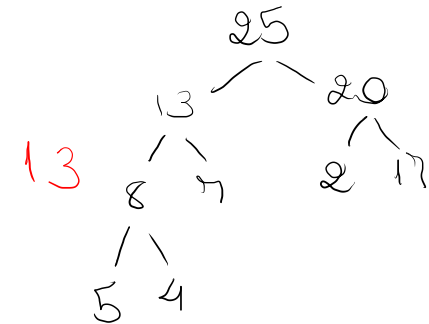
→ $A = \langle \dots, 25 \rangle$

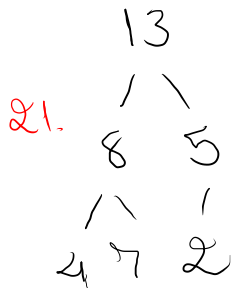
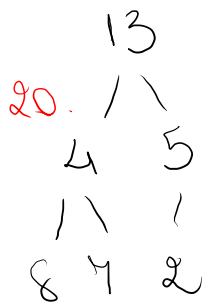


→ $A = \langle \dots, 20, 25 \rangle$

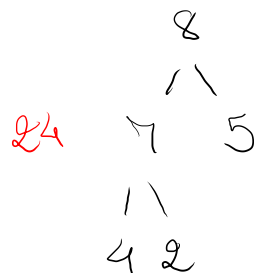
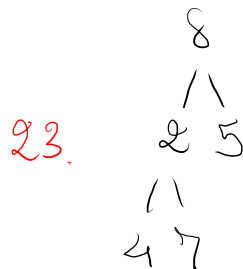
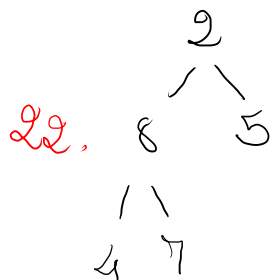


→ $A = \langle \dots, 17, 20, 25 \rangle$

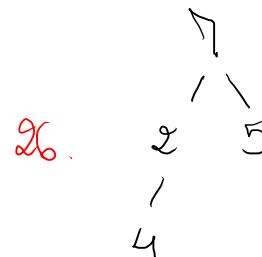
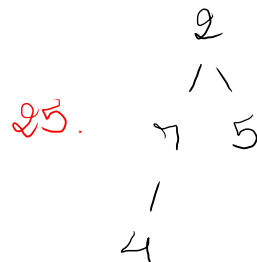




$\rightarrow A = \langle \dots, 13, 17, 20, 25 \rangle$



$\rightarrow A = \langle \dots, 8, 13, 17, 20, 25 \rangle$



$\rightarrow A = \langle \dots, 7, 8, 13, 17, 20, 25 \rangle$



$A = \langle \dots, 5, 7, 8, 13, 17, 20, 25 \rangle$

$$\begin{array}{r} 2 \\ 30. \quad / \\ 4 \end{array}$$

$$\begin{array}{r} 4 \\ 31. \quad / \\ 2 \end{array}$$

$$\rightarrow A = \langle \dots, 4, 5, 7, 8, 13, 17, 20, 25 \rangle$$

$$32. \quad 2$$

$$A = \langle 2, 4, 5, 7, 8, 13, 17, 20, 25 \rangle$$

ordenado