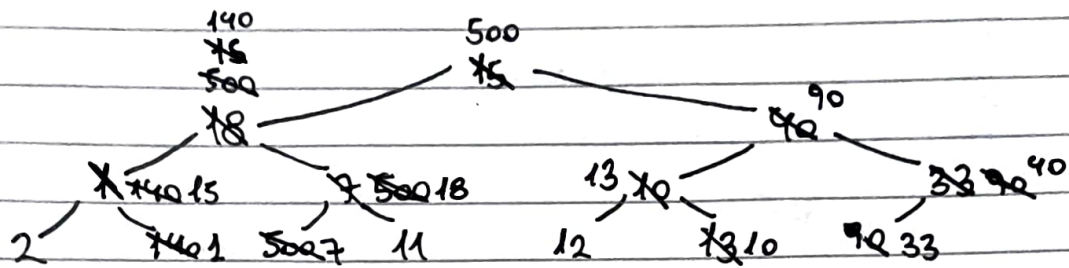


7)  $v = [15, 18, 40, 1, 7, 10, 33, 2, 140, 500, 11, 12, 13, 90]$



$i = 7 ; v[i] = 33$

$v = \{15, 18, 40, 1, 7, 10, 90, 2, 140, 500, 11, 12, 13, 33\}$

$i = 6 ; v[i] = 10$

$v = \{15, 18, 40, 1, 7, 10, 90, 2, 140, 500, 11, 12, 13, 33\}$

$i = 5 ; v[i] = 7$

$i = 4 ; v[i] = 1$

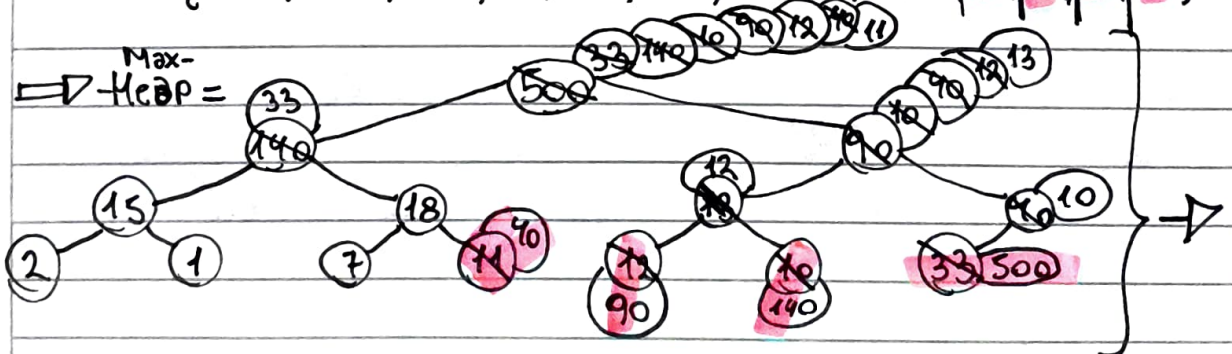
$i = 3 ; v[i] = 40$

$i = 2 ; v[i] = 18$

$i = 1 ; v[i] = 15$

$\Rightarrow v = \{500, 140, 90, 15, 18, 12, 10, 2, 1, 7, 90, 140, 33, 13\}$

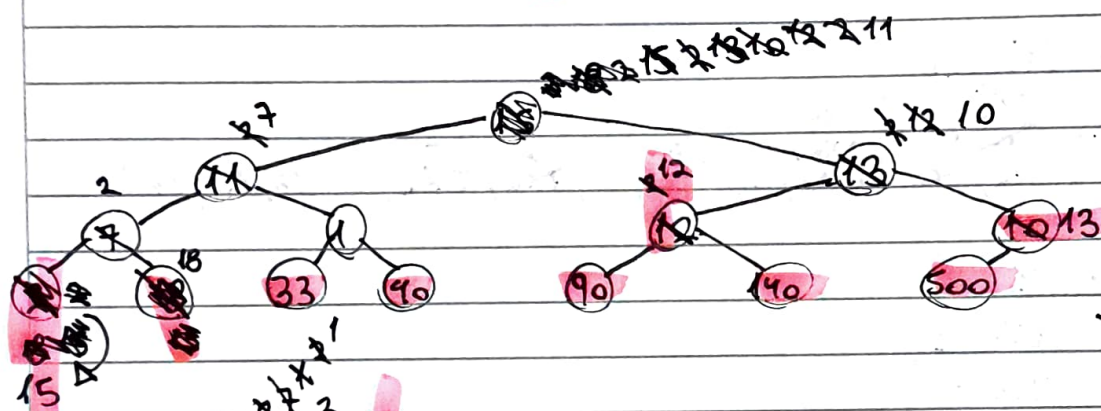
Max-Heap =



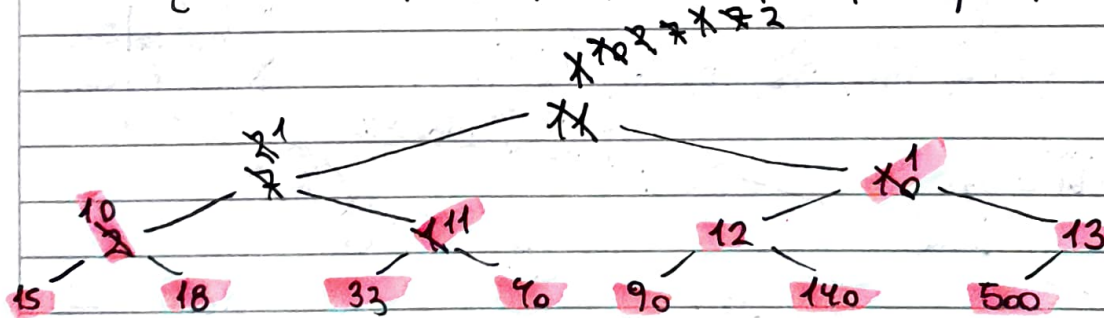
$v = \{ \cancel{15}, \cancel{18}, \cancel{7}, \cancel{11}, 33, 13, \cancel{15}, \cancel{18}, 12, 10, 2, \cancel{18}, \cancel{33}, 40, 90, 140, 500 \}$



$v = \{ \cancel{15}, \cancel{18}, \cancel{7}, \cancel{11}, \cancel{10}, \cancel{12}, \cancel{13}, \cancel{15}, \cancel{18}, 33, 40, 90, 140, 500 \}$



$v = \{ \cancel{15}, \cancel{18}, \cancel{7}, \cancel{11}, \cancel{10}, \cancel{12}, \cancel{13}, \cancel{15}, \cancel{18}, 10, 11, \cancel{12}, \cancel{13}, \cancel{15}, \cancel{18}, 33, 40, 90, 140, 500 \}$



$\text{HeapSort}(v) = \{ 1, 2, 7, 10, 11, 12, 13, 15, 18, 33, 40, 90, 140, 500 \}$   
 (Ascendente)