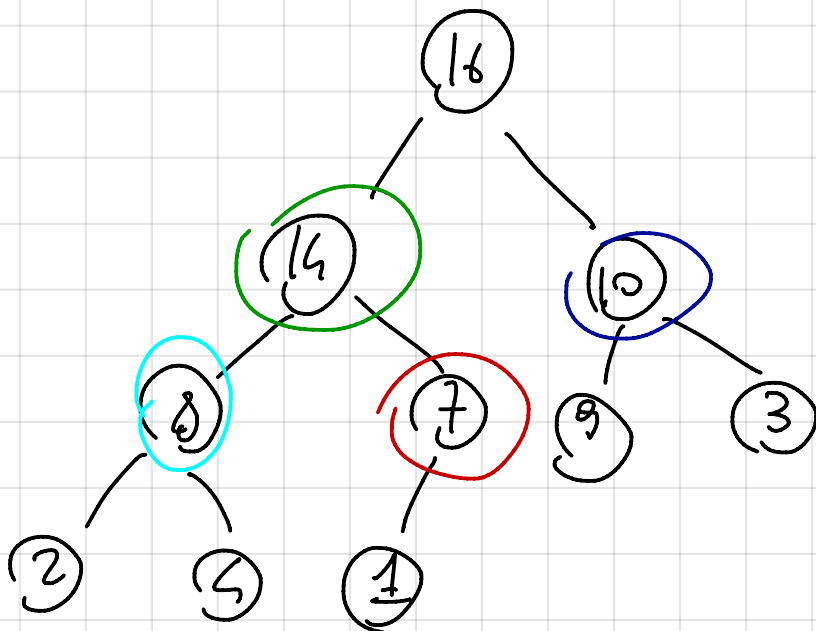
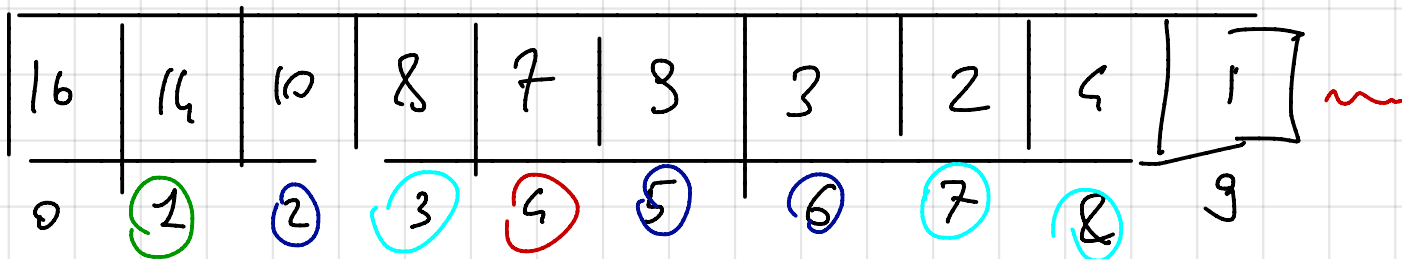
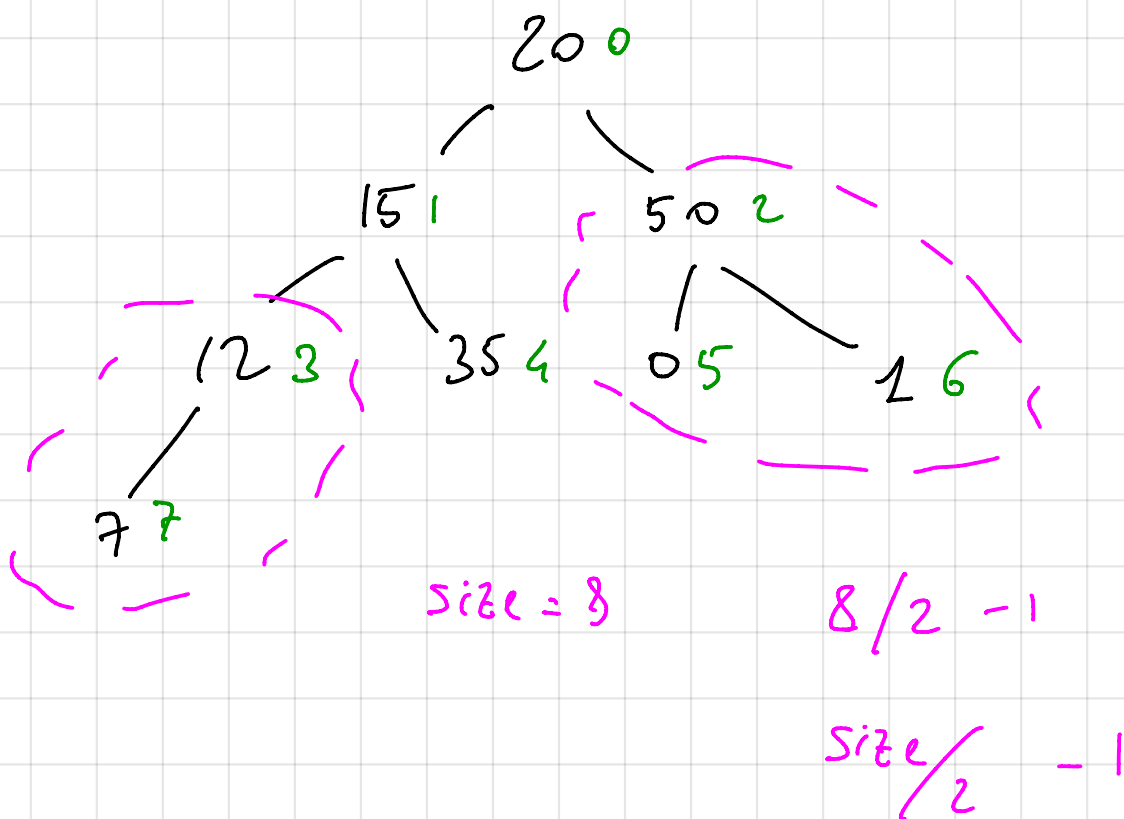
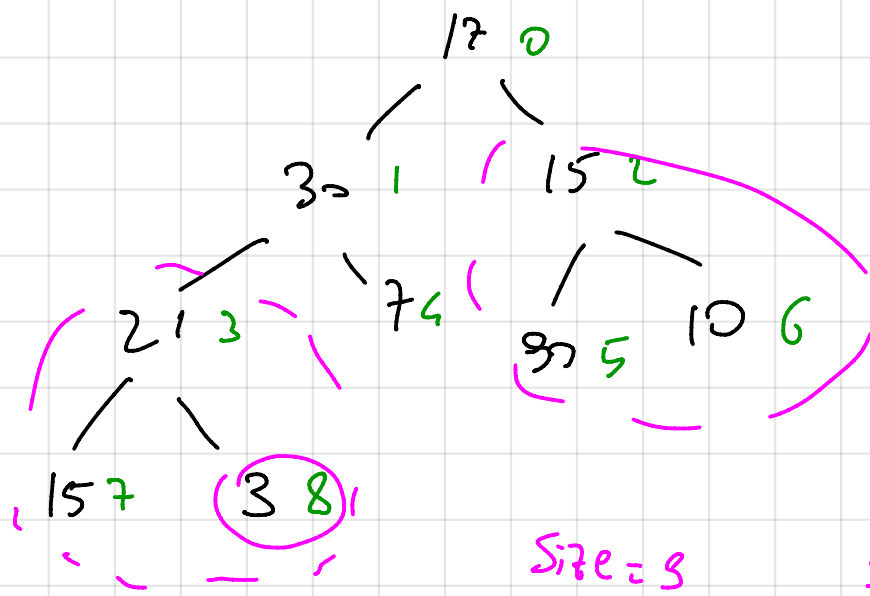


# HEAP



$left(i) = 2i + 1$   
 $right(i) = 2i + 2 = 2(i+1)$   
 $parent(i) = \lfloor i/2 \rfloor - 1$   
 $\lfloor \frac{i-1}{2} \rfloor$   
 $i > 0$





$$\frac{6}{2} = 1 \times 2 = 2, 5$$

$$\left\lfloor \frac{5}{2} \right\rfloor - 1$$

$$\left\lfloor \frac{\text{size}}{2} \right\rfloor - 1$$

size = 5

$$5/2 \left\lfloor \frac{4, 5}{2} \right\rfloor - 1$$

$$\left\lfloor \frac{(\text{size} - 1) - 1}{2} \right\rfloor = \left\lfloor \frac{\text{size} - 2}{2} \right\rfloor$$

$$\left\lfloor \frac{6 - 2}{2} \right\rfloor = \frac{4}{2} = 2$$

$$\left\lfloor \frac{5 - 2}{2} \right\rfloor = \left\lfloor \frac{3}{2} \right\rfloor = 1$$