$pre = [\cancel{A}, \cancel{B}, \cancel{C}, \cancel{D}, \cancel{E}, \cancel{F}, \cancel{G}, H, I]$

$in = [C, B, D \mid A, F, E, H, G, I]$

$\underline{\qquad} = mid$

$root = pre[0] = in[3]$

$left = in[:3] \leftarrow$

$rigth = in[4:] \leftarrow$
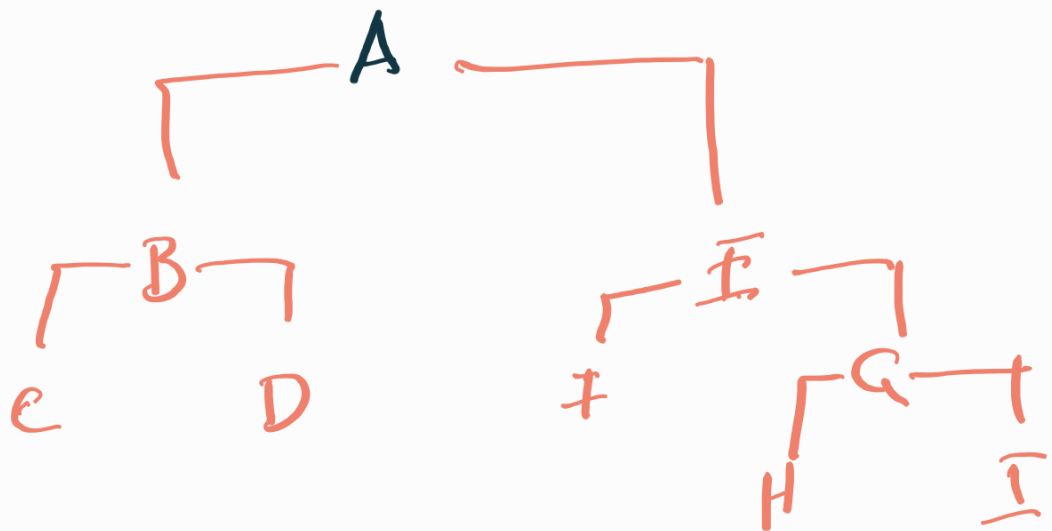
$A = \{ 0, 1, 2, 3, \ldots, 100 \}.$

$target = 73$

$l_A = |A|$

1. $target > A[l_A/2]$

   $B = A[l_A/2 + 1 :]$

2. $target < B[l_B/2]$

   $B = B[: l_B/2].$

   $\vdots$