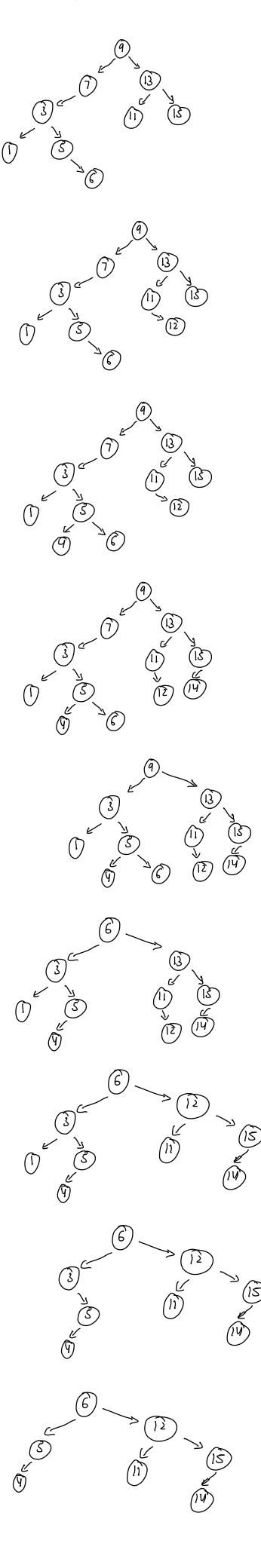
<u>Q1</u>



$$\begin{array}{lll}
& \text{In } poJ & 9), \\
& = 0 + 1 + 2 + 3 + ... + n - 1 + n \times 1 \text{ invert} \\
& = \frac{n(n-1)}{2} + n \\
& = \frac{n^2}{2} - \frac{n}{2} + n \\
& = \frac{n^2}{2} + \frac{n}{2} \\
& \text{Run-Time} = \Theta(n^2 + n) = \Theta(n^2)
\end{array}$$

$$\begin{array}{lll}
& \text{Run-Time} & = \Theta(n^2 + n) = \Theta(n^2) \\
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& \text{Run-Time} & = \Theta(n^2 + n) = \Theta(n^2) \\
& \text{Run-Time} & = \Theta(n + 1) + 1) & \text{invert}
\end{array}$$

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O(n logn)

<u>Q</u>2.