

Quiz 7 S20

1.)

$$T(n) = \begin{cases} \Theta(1) & : n \leq 10 \\ T(10) + T(n-10) + \Theta(n) & : n > 10 \end{cases}$$

This is my recurrence relation for this problem because $\Theta(1)$ represents the runtime of $T(n)$, when we reach the base case.

$T(10) + T(n-10) + \Theta(n)$ represents our algorithm choosing the 10th largest element as our partition