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CSCI 333
TrinarySearch Program

1. Θ(n) of a trinary search is $\Theta(\log_3 n)$
2. Although a trinary search may have a better complexity due to the binary search time complexity of $\log_2 n$ being greater than $\log_3 n$, the trinary search can be considered slower due to the constants being larger in the trinary search. But in terms of big theta, it is better for growth rate as opposed to the specific runtime for a given n.

Size of Recursive Call	# work done
T(n)	$\log_3 n$
T(n/3)	n/3 + n/3 + n/3 = n
T(n/9)	n/9 + n/9 + n/9 + ... = n
T(n/27)	n/27 + n/27 + n/27 + … = n
…	…
T(1)	N = 1