

CSE 332: Data Structures and Parallelism

QuickCheck: Asymptotics Solutions

0. \mathcal{O} boy!

For each of the following rows, circle each option on the right that is true for the function on the left and X each option that is false for the function on the left.

n^2	$\mathcal{O}(n)$	$\Omega(n^2)$	$\mathcal{O}(n^n)$	$\mathcal{O}(\log n)$
$2n + n \log n$	$\mathcal{O}(n)$	$\mathcal{O}(n \log n)$	$\mathcal{O}(\log n)$	$\mathcal{O}(1)$
$\log(3^n)$	$\mathcal{O}(\log n)$	$\mathcal{O}(n)$	$\Omega(\log n)$	$\mathcal{O}(2^n)$
$\log(n^3)$	$\mathcal{O}(\log n)$	$\Omega(n)$	$\Omega(\log n)$	$\Omega(n^3)$