

2) (10 pts) ANL (Algorithm Analysis)

An algorithm processes an array of size r by c in $O(rc^2)$ time. For an array of size $r = 200$ and $c = 500$, the algorithm takes 5.0 seconds. How long, in seconds, will the algorithm take to process an input array of size $r = 800$ and $c = 300$? Please express your answer with exactly one digit after the decimal point.