

# $O(arrA * arrB)$

Quadratic Complexity. The inner loop has  $O(arrB)$  iterations and is called `arrA` times. The inner loop is called a constant number of times (100,000) making the unsimplified Big O Notation  $O(100,000arrA * arrB)$ . Remember we drop constants, so the final notation is simplified to  $O(arrA * arrB)$

# Which of the following are equivalent to $O(N)$ ?

1)  $O(N + M)$ , where  $M < N/2$

2)  $O(2N)$

3)  $O(N + \log N)$

4)  $O(N + M)$