

12. Given an n -element array X of integers, Algorithm C executes an $O(n)$ -time computation for each even number in X , and an $O(\log n)$ -time computation for each odd number in X . What are the best-case and worst-case running times of Algorithm C? [5 Marks]

The best-case running times of C is $O(\log n)$.

The worst-case running times of C is $O(n)$.