


$$O(\log |A|) \cdot |A| \cdot (\log^2 |A| + |\text{succ}(|A|)|) = O(n^2 \log n) \cdot |A| \cdot (\log^2 |A| + |\text{succ}(|A|)|) = O(n^2 \log n) \cdot |A| \cdot (\log^2 |A| + |\text{succ}(|A|)|).$$