```
int n;  // large value
int* A; // points to array of size n
int x = n;

int f1(int* A){
    if(x == 0){
        x = n;
        return 1;}
    else if((x % (int)sqrt(n) == 0){
        for(int i = 1; i < n; i++){
            for(int j = 0; j < i; j++){
                // O(1)
            }
        }
    else{
        // O(1)
    }
    x--;
    return 0;
```

$\sum_{k=0}^{\sqrt{n}} n^{1/2}$ $\sum_{i=1}^{n} n^{3/2}$ $\sum_{j=0}^{i}$

$\Rightarrow \sum n^2 \rightarrow O(n^2) \rightarrow O(\frac{1}{n}) = O(n^{3/2})$

occurs $\sqrt{n}$ times

$x = n = 16$

$[n = 16, 4, 2, 1] \rightarrow x \% \sqrt{n} = 0$

$O(n^2 * n^{1/2})$

$= O(n^{5/2})$