```
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;
```

$$\sum_{k=0}^{\sqrt{n}} \sum_{i=1}^{n} \sum_{j=0}^{i} n^{1/2} \cdot n^{3/2} \Longrightarrow \sum n^2 \rightarrow O(n^2) \rightarrow O\left(\frac{n^2}{n^{1/2}}\right) = O(n^{3/2})$$

occurs $\sqrt{n}$ times

$x = n = 16$

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