

Se enojo?

tono

```
1 float tono(senial s){
2     float sumatoria = 0;
3     for(int i=0; i < s.size(); i++){
4         sumatoria = sumatoria + abs(s[i]);
5     }
6     return sumatoria / s.size();
7 }
```

c_1	1
c_2	$n+1$
c_3	n
c_4	1

- $n = |s|$
- $T_{\text{tono}}(n) = c_1 + c_2 * (n + 1) + c_3 * n + c_4$
- $T_{\text{tono}}(n) \in O(n)$

duraMasDe

```
1 bool duraMasDe(senial s, int freq, float seg){
2     return (s.size() >= freq*seg);
3 }
```

c_1''	1
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- $n = |s|$
- $T_{\text{duraMasDe}}(n) = c_1''$
- $T_{\text{duraMasDe}}(n) \in O(1)$

seEnojo

```
1 bool seEnojo(senial s, int umbral, int prof, int freq) {
2     bool resp = false;
3     int min = 2;
4     if(!duraMasDe(s,freq,min)){
5         return resp;
6     } else{
7         int i = 0;
8         while( i < (s.size() - (min*freq-1)) && resp == false){
9             int j=i+(min*freq);
10            while(j<=s.size() && resp == false){
11                senial subSenial (s.begin()+i,s.begin()+j);
12                resp = (tono(subSenial) > umbral);
13                j++;
14            }
15            i++;
16        }
17        return resp;
18    }
19 }
```

c_1'''	1
c_2'''	1
c_3'''	1
c_4'''	$(n-r) + 1$
c_5'''	1
$c_6''' * (n - r)$	$(n-r) + 1$
c_7'''	1
$c_8''' * (n - r) * (n - r)$	n
c_9'''	1
$c_1'''0$	1

- $r = \text{min} * \text{freq} - 1 = 19$
- $T_{\text{seEnojo}}(n) = c_1''' + c_2''' + c_3''' + c_4''' * [(n - r + 1) + c_5''' + c_6''' * (n - r) * (n - r + 1) + c_7''' + c_8''' * (n - r)^2 * n + c_9''' + c_1'''0]$
- $T_{\text{seEnojo}}(m) \in O(n^3)$