Se enojo?

valorAbsoluto

```
1 int valorAbsoluto(int &n){
2     if(n<0){
3         n = n * (-1);
4     }
5     return n;
6 }
```

c_1	1
c_2	1

- $T_{valorAbsoluto} = c_1 + c_2$
- $T_{valorAbsoluto} \in O(1)$

tono

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

c'_1	1
c'_2	n+1
c'_3	n
c'_4	1

- $n = |s|$
- $T_{tono}(n) = c'_1 + c'_2 * (n+1) + c'_3 * n + c'_4$
- $T_{tono}(n) \in O(n)$

duraMasDe

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

c''_1	1

- $n = |s|$
- $T_{duraMasDe}(n) = c''_1$
- $T_{duraMasDe}(n) \in O(1)$

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){
9              int j=i+(min*freq);
10             while(j<=s.size() && !resp){
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'''	1
c_5'''	(n-r) + 1
c_6'''	(n-r)
$c_7''' * (n-r)$	(n-r) + 1
$c_8''' * (n-r) * (j-i)$	(n-r)
$c_9''' * (n-r) * (j-i)$	(n-r)
$c_1'''0 * (n-r)$	(n-r)
$c_1'''1$	(n-r)

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