Se enojo?

valorAbsoluto

```
int valorAbsoluto(int &n){
    if(n<0){
        n = n * (-1);
    }
    return n;
}</pre>
```

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

tono

```
float tono(senial s){
   float sumatoria = 0;
   for(int i=0; i < s.size(); i++){
       sumatoria = sumatoria + valorAbsoluto(s[i]);
   }
   return sumatoria / s.size();
   }
}</pre>
```

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

duraMasDe

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

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

seEnojo

```
bool seEnojo(senial s, int umbral, int prof, int freq) {
         bool resp = false;
                                                                                                                                                          1
         int min = 2;
                                                                                                                                                          1
         if(!duraMasDe(s,freq,min)){
               return resp;
         } else{
6
                                                                                                                                   c_{4}^{\prime\prime\prime} \\ c_{5}^{\prime\prime\prime} \\ c_{6}^{\prime\prime\prime} \\ c_{7}^{\prime\prime\prime} \cdot (n-r)
                                                                                                                                                          1
               int i = 0;
                while( i < (s.size() - (min*freq-1)) && !resp){</pre>
                                                                                                                                                      n - r + 1
                      int j=i+(min*freq);
                      while(j<=s.size() && !resp){</pre>
                                                                                                                                                       n-r+1
10
                                                                                                                               c_8''' \cdot (n-r) \cdot (j-i)
c_9''' \cdot (n-r) \cdot (j-i)
11
                            senial subSenial (s.begin()+i,s.begin()+j);
                            resp = (tono(subSenial) > umbral);
                                                                                                                                                        n-r
12
                            j++;
                                                                                                                                   c_{10}^{\prime\prime\prime}\cdot(n-r)
13
                     }
14
15
                      i++;
                                                                                                                                        c_{11}'''
                                                                                                                                                        n-r
16
                return resp;
17
18
19 }
```

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