Se enojo?

valorAbsoluto

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

c_1	1
c_2	1

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

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();
}
```

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

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

c''_1	1

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

seEnojo

```
bool seEnojo(senial s, int umbral, int prof, int freq) {
    bool resp = false;
    int min = 2;
    if(!duraMasDe(s,freq,min)){
        return resp;
    } else{
        int i = 0;
        while( i < (s.size() - (min*freq-1)) && !resp){
            int j=i+(min*freq);
            while(j<=s.size() && !resp){
                senial subSenial (s.begin()+i,s.begin()+j);
                resp = (tono(subSenial) > umbral);
                j++;
            }
            i++;
        }
        return resp;
    }
}
```

c_1'''	1
c_2'''	1
c_3'''	1
c_4'''	1
c_5'''	$(n-r)+1$
c_6'''	$(n-r)$
$c_7''' * (n-r)$	$(n-r)+1$
$c_8''' * (n-r) * (j-i)$	$(n-r)$
$c_9''' * (n-r) * (j-i)$	$(n-r)$
$c_{10}''' * (n-r)$	$(n-r)$
c_{11}'''	$(n-r)$

- $n = |s|$
- $r = min * freq - 1 = 19$
- $(n-r) \approx n$
- $(j-i) \approx n$
- $T_{seEnojo}(n) = c_1''' + c_2''' + c_3''' + c_4''' + c_5''' * (n-r+1) + c_6''' * (n-r) + c_7''' * (n-r)^2 + c_7''' + c_8''' * (n-r)^2 * (j-i) + c_9''' * (n-r)^2 * (j-i) + c_{10}''' * (n-r)^2 + c_{11}''' * (n-r)$
- $T_{seEnojo}(m) \in O(n^3)$