

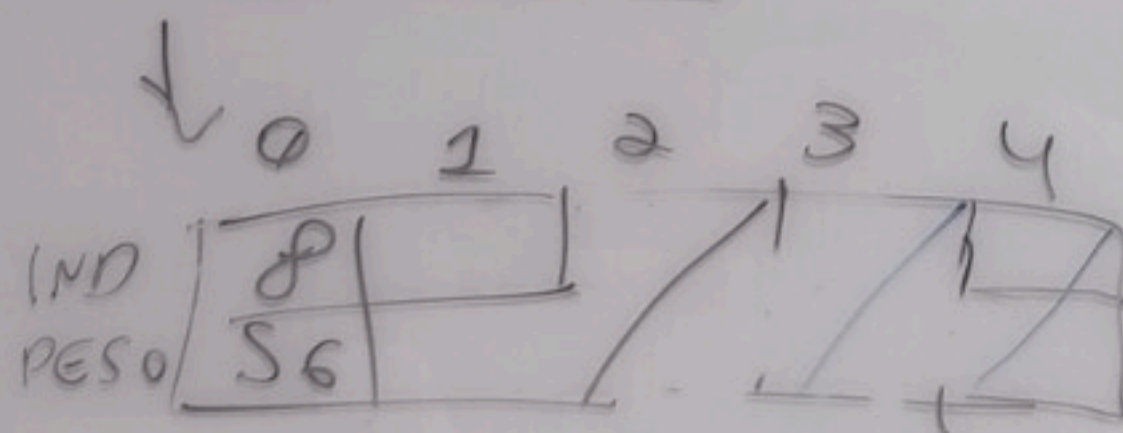
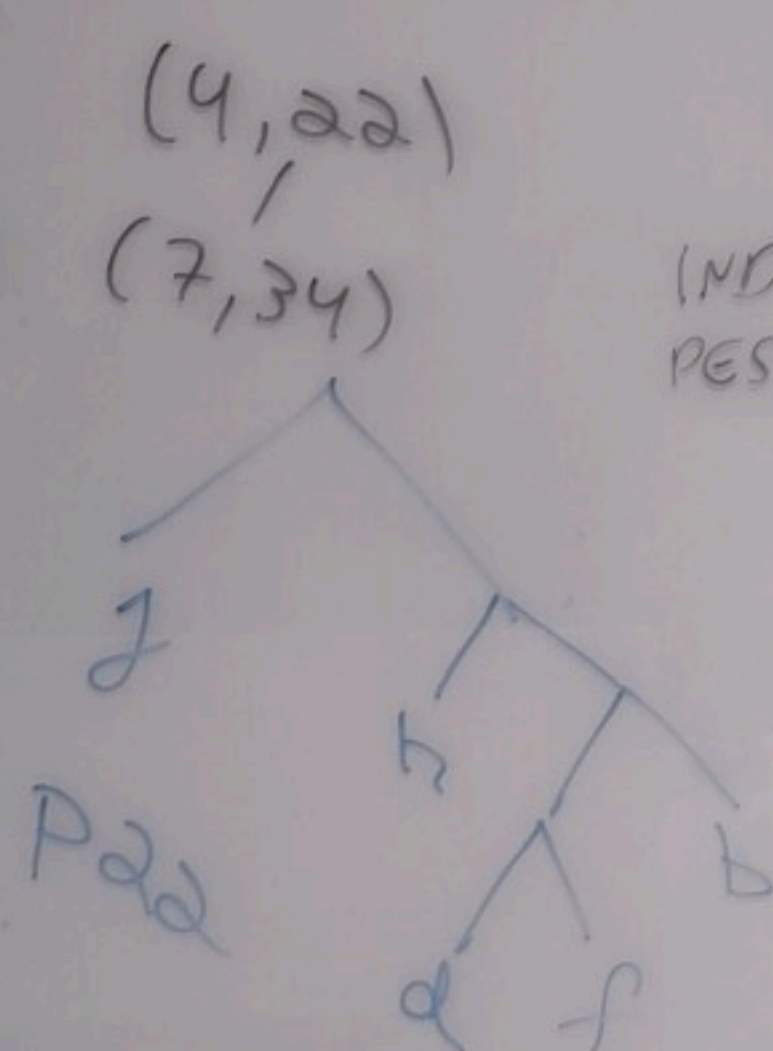
10 2 7 15 22  
b d f h j  
 $n = 5$

ARVORE:

|     |   |   |   |   |   |   |   |   |   |
|-----|---|---|---|---|---|---|---|---|---|
| ESQ | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| DIR | b | d | f | h | j | 1 | 5 | 3 | 4 |
|     | ? | ? | ? | ? | ? | 2 | 0 | 6 | 7 |

HEAP

|        |    |   |   |    |    |
|--------|----|---|---|----|----|
| INDICE | 0  | 1 | 2 | 3  | 4  |
| PESO   | 10 | 2 | 7 | 15 | 22 |



2. PERCORRER VETOR DE OCOR. E CONTAR QUANTOS VALORES DE BYTE OCORREM NO ARQ. ESSE É O VALOR DE  $n$ .

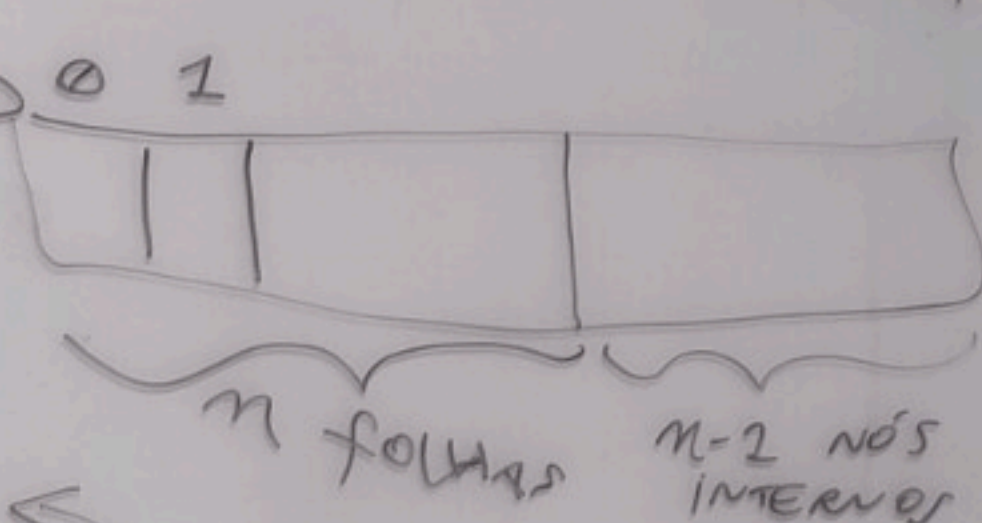
1. ABRIR O ARQ. DE ENTRADA EM MODE BINÁRIO E CONTAR AS OCORRÊNCIAS DE CADA BYTE.

3. STRUCT NohHuf

{  
SHORT INT ESQ, DIR;

};

ALOCAR UM VETOR "ARVORE" COM  $2*n-1$  NÓS NohHuf.



4. PERCORRER VETOR DE OCORRÊNCIAS P/ GRAVAR "CARACT." (VALORES DE BYTE) QUE OCORREM NO ARQ. NO VETOR "ARVORE".

5. STRUCT NohHeap

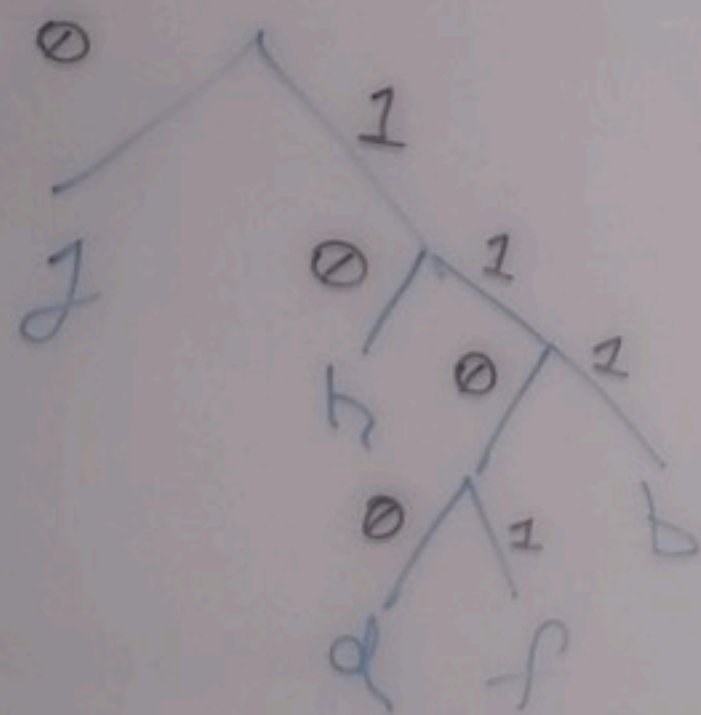
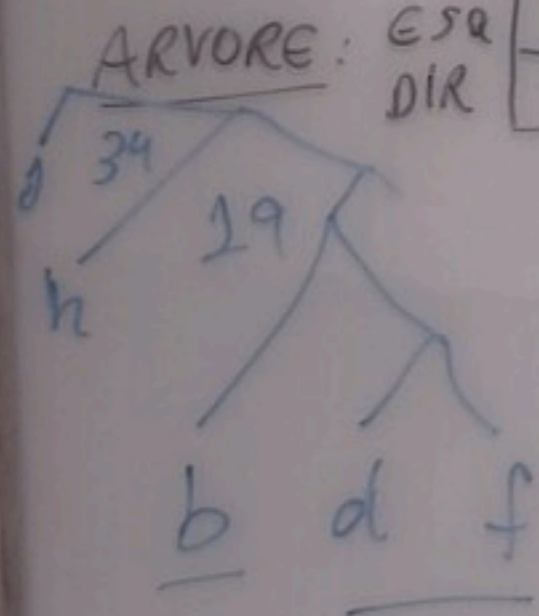
{  
SHORT INT INDICE;  
INT PESO; //LONG, etc.  
};

6. CRIAR VETOR DE  $n$  ELEMENTOS E PREENCHER COM OS INDICES DAS FOLHAS DA ÁRVORE E SEUS PESOS.



10 2 7 15  
b d f h j  
 $n=5$

|     | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----|---|---|---|---|---|---|---|---|---|
| ESQ | b | d | f | h | j | i | s | 3 | 4 |
| DIR | ? | ? | ? | ? | ? | 2 | 0 | 6 | 7 |

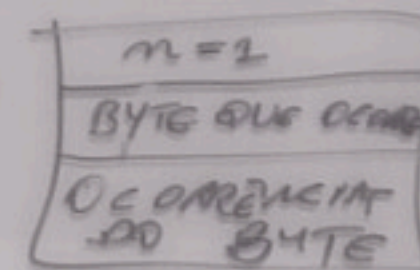


### 3 CASOS:

1. ARQ. ENTRADA VAZIO: ARQ. COMP. VAZIO

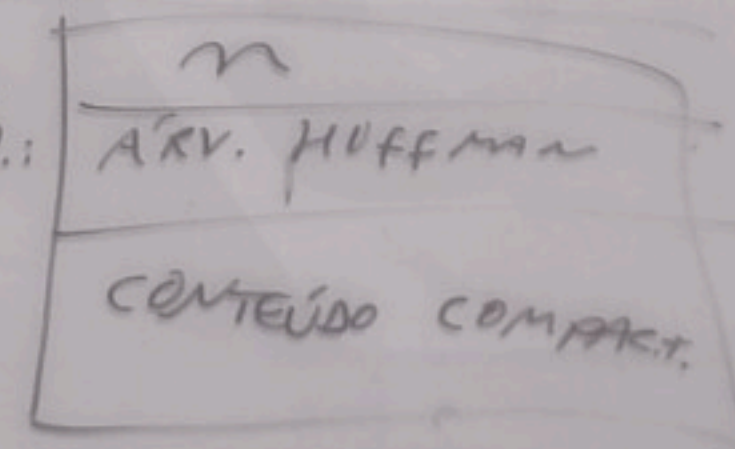
2.  $n=1$

ARQ. COMP.:



3.  $n \geq 2$

ARQ. COMP.:



```

ostream & ostream::write
(const char *v,
 ... QTO)

ofstream ARQ (nome, ...);
ARQ.write ((char *) ARVORE,
           (2*n-1)*sizeof(NodeHuf));
    
```

Wand.  
D. Silva  
It. R.