

Exemplo Huffman

- Texto
 - "O SOCRATES E INVENDAVEL, INEGOCIABEL E IMPRESTAVEL"
- By Vicente Mateus

Exemplo Huffman

Contando a frequência dos caracteres

- Texto
 - "O SOCRATES E INVENDAVEL, INEGOCIABEL E IMPRESTAVEL"

By Vicente Mateus

'O' → 1

Exemplo Huffman

Contando a frequência dos caracteres

- Texto
 - "O SOCRATES E INVENDAVEL, INEGOCIABEL E IMPRESTAVEL"

By Vicente Mateus

'O'	→	1
' '	→	1

Exemplo Huffman

Contando a frequência dos caracteres

- Texto
 - "O SOCRATES E INVENDAVEL, INEGOCIAVEL E IMPRESTAVEL"

By Vicente Mateus

'O'	→	1
' '	→	1
'S'	→	1

Exemplo Huffman

Contando a frequência dos caracteres

- Texto
 - "O SOCRATES E INVENDAVEL, INEGOCIAVEL E IMPRESTAVEL"

By Vicente Mateus

'O'	→	2
' '	→	1
'S'	→	1

Exemplo Huffman

Contando a frequência dos caracteres

- Texto
 - "O SOCRATES E INVENDAVEL, INEGOCIABEL E IMPRESTAVEL"

By Vicente Mateus

'O'	→	2
' '	→	1
'S'	→	1
'C'	→	1

Exemplo Huffman

Contando a frequência dos caracteres

- Texto
 - "O SOCRATES E INVENDAVEL, INEGOCIAVEL E IMPRESTAVEL"

By Vicente Mateus

'O'	→	2
' '	→	1
'S'	→	1
'C'	→	1
'R'	→	1

Exemplo Huffman

Contando a frequência dos caracteres

- Texto
 - "O **SOCRA**TES E INVENDAVEL, INEGOCIAVEL E IMPRESTAVEL"

By Vicente Mateus

'O'	→	2
' '	→	1
'S'	→	1
'C'	→	1
'R'	→	1
'A'	→	1

Exemplo Huffman

Contando a frequência dos caracteres

- Texto
 - "O SOCRATES E INVENDAVEL, INEGOCIABEL E IMPRESTAVEL"

By Vicente Mateus

'O'	→	2
' '	→	1
'S'	→	1
'C'	→	1
'R'	→	1
'A'	→	1
'T'	→	1

Exemplo Huffman

Contando a frequência dos caracteres

- Texto
 - "O SOCRATES E INVENDAVEL, INEGOCIAVEL E IMPRESTAVEL"

By Vicente Mateus

'O'	→	2
' '	→	1
'S'	→	1
'C'	→	1
'R'	→	1
'A'	→	1
'T'	→	1
'E'	→	1

Exemplo Huffman

Contando a frequência dos caracteres

- Texto
 - "O SOCRATES E INVENDAVEL, INEGOCIAVEL E IMPRESTAVEL"

By Vicente Mateus

'O'	→	2
' '	→	1
'S'	→	2
'C'	→	1
'R'	→	1
'A'	→	1
'T'	→	1
'E'	→	1

Exemplo Huffman

Contando a frequência dos caracteres

- Texto
 - "O SOCRATES E INVENDAVEL, INEGOCIAVEL E IMPRESTAVEL"

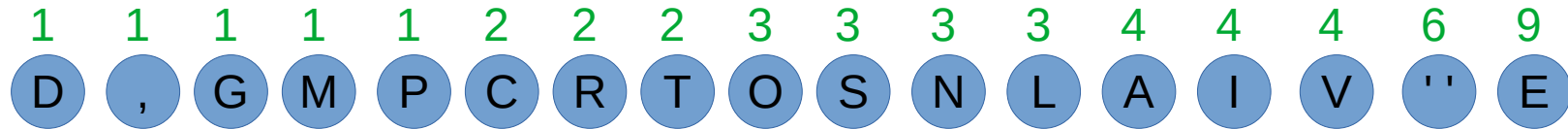
By Vicente Mateus

'O' → 3	'I' → 4	'P' → 1
' ' → 6	'N' → 3	
'S' → 3	'V' → 4	
'C' → 2	'D' → 1	
'R' → 2	'L' → 3	
'A' → 4	',' → 1	
'T' → 2	'G' → 1	
'E' → 9	'M' → 1	



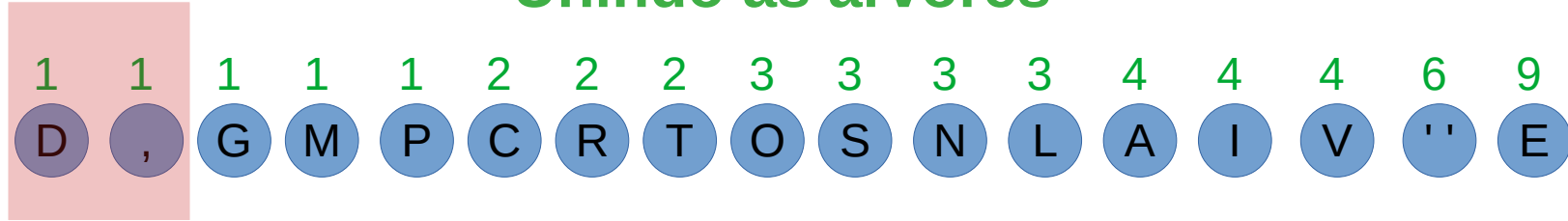
Exemplo Huffman

Criando o conjunto de árvores em ordem de frequência



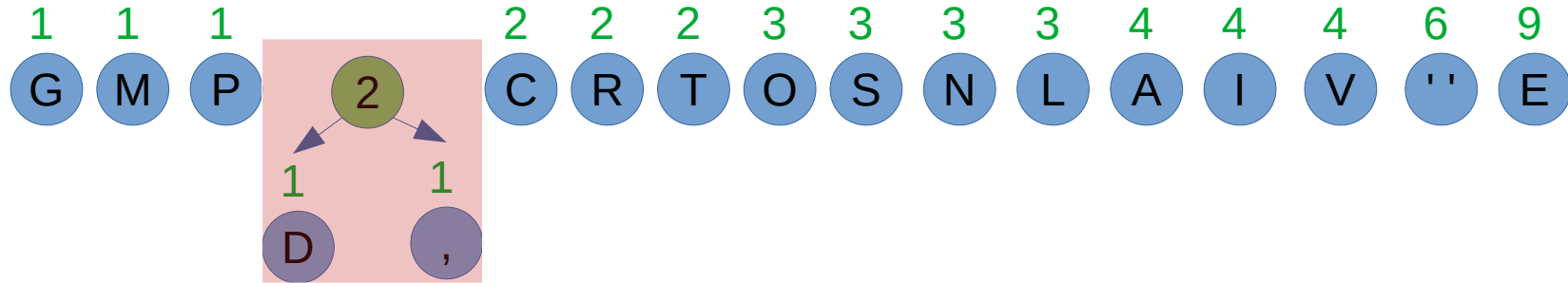
Exemplo Huffman

Unindo as árvores



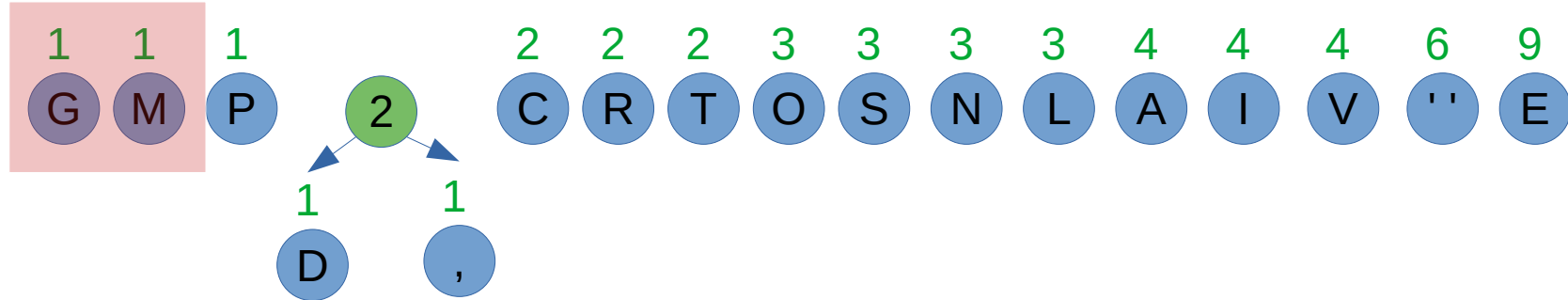
Exemplo Huffman

Unindo as árvores



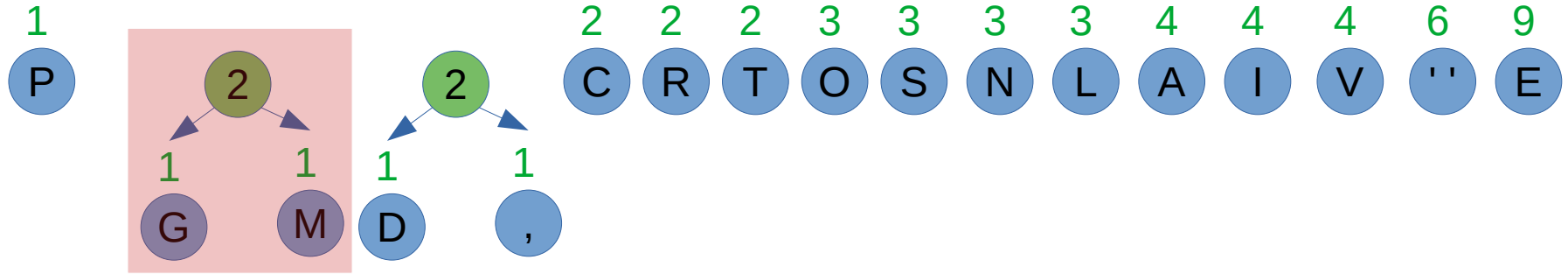
Exemplo Huffman

Unindo as árvores



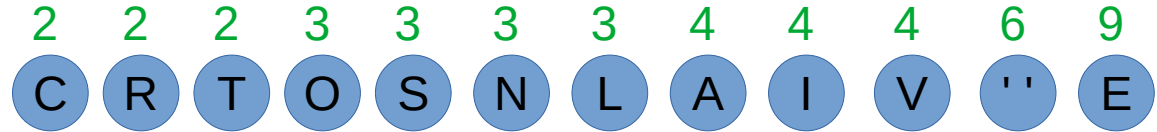
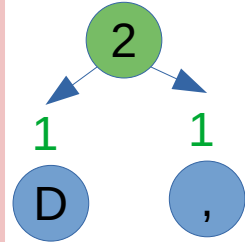
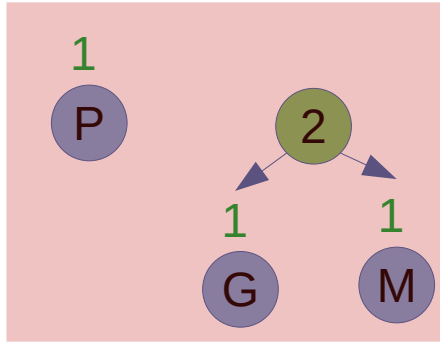
Exemplo Huffman

Unindo as árvores



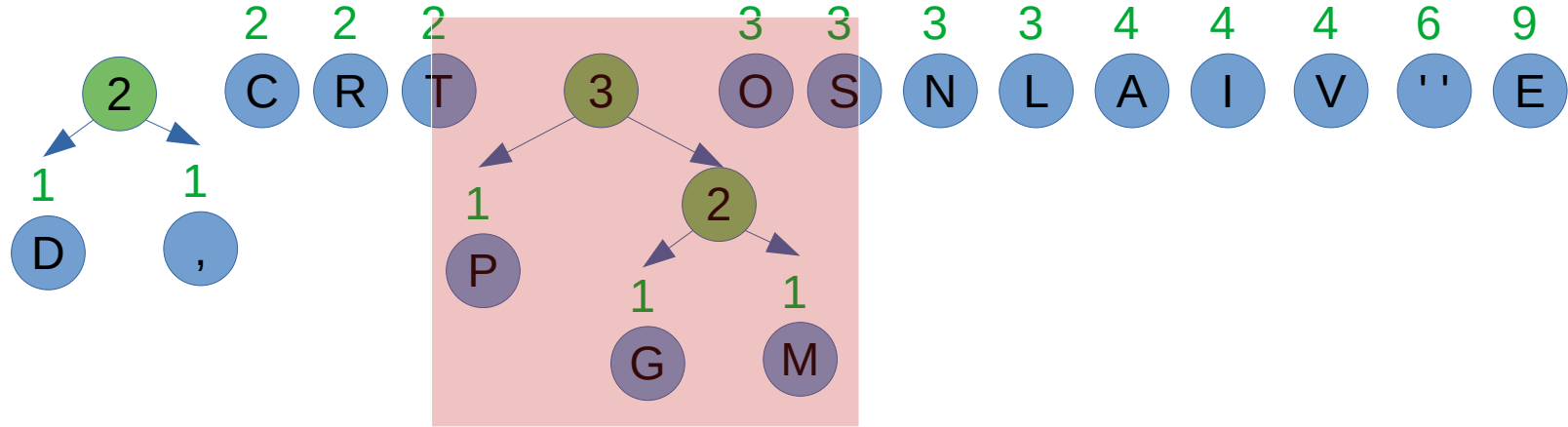
Exemplo Huffman

Unindo as árvores



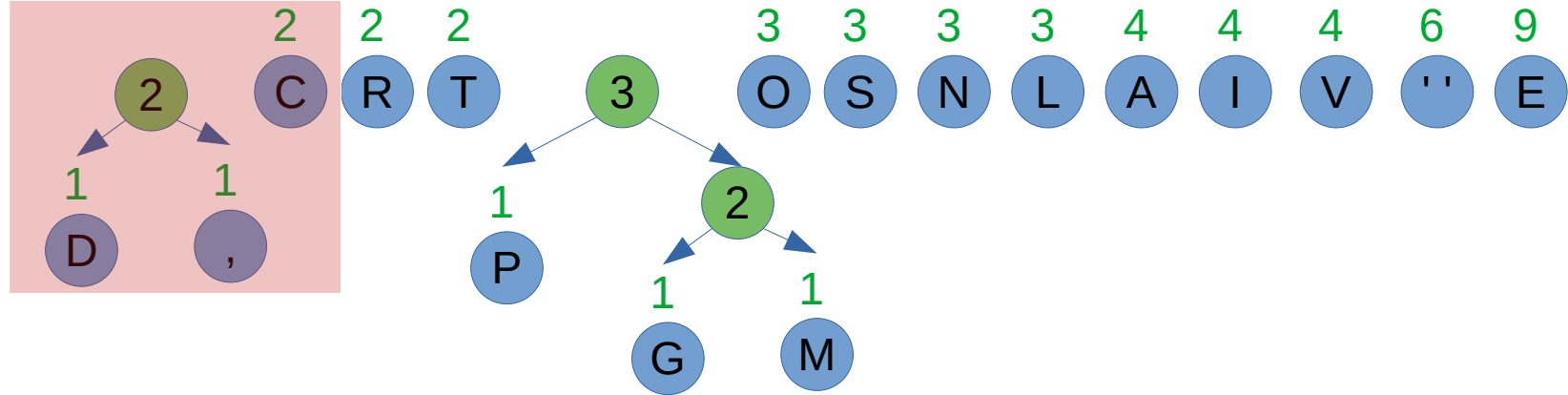
Exemplo Huffman

Unindo as árvores



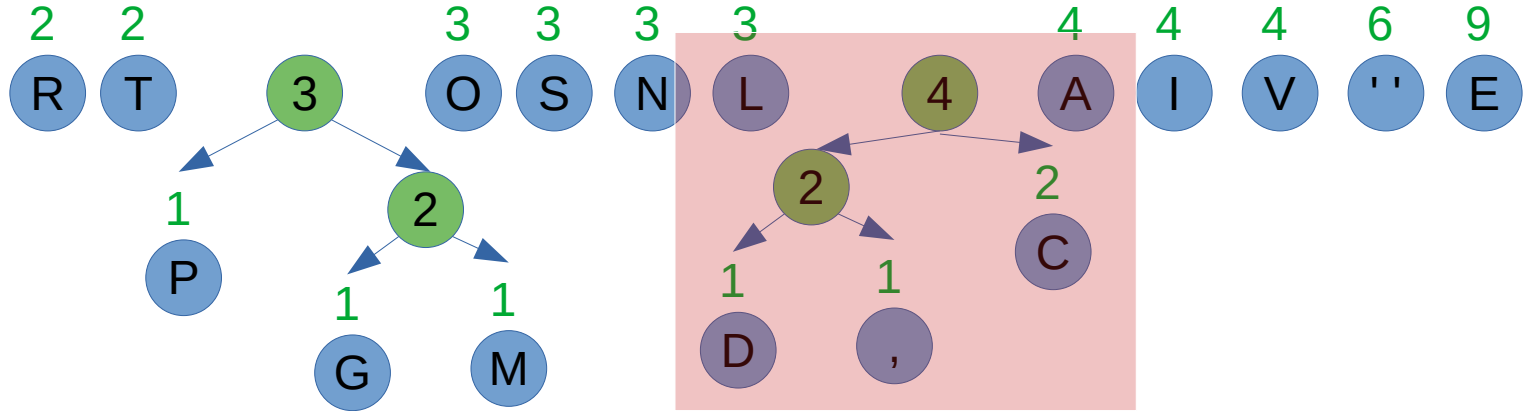
Exemplo Huffman

Unindo as árvores



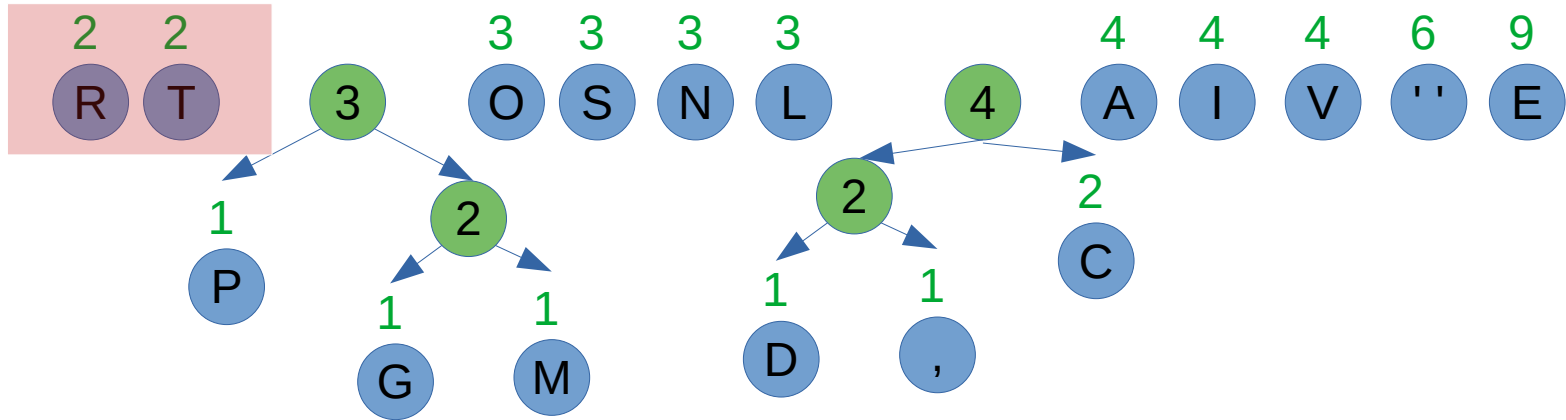
Exemplo Huffman

Unindo as árvores



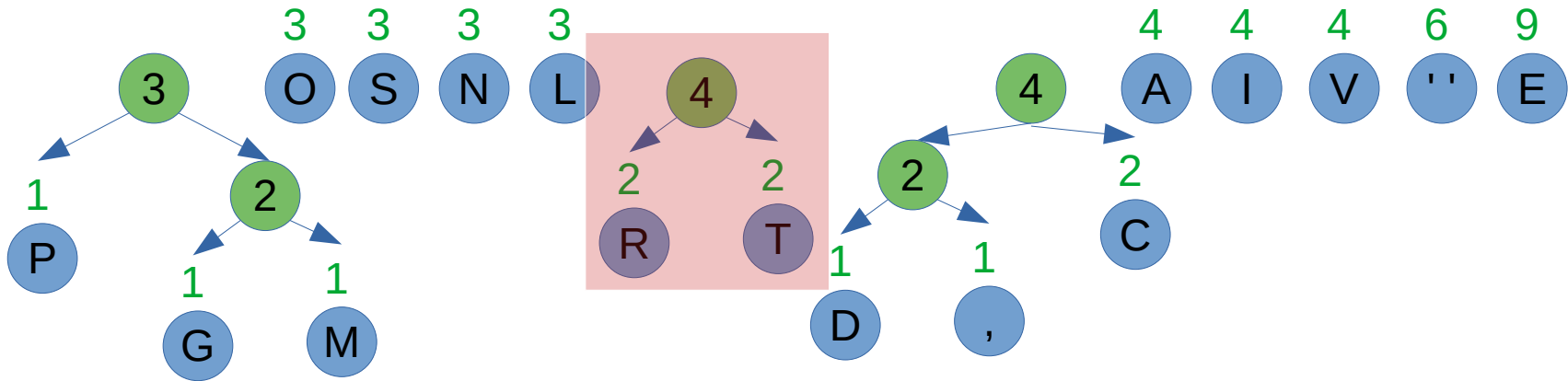
Exemplo Huffman

Unindo as árvores



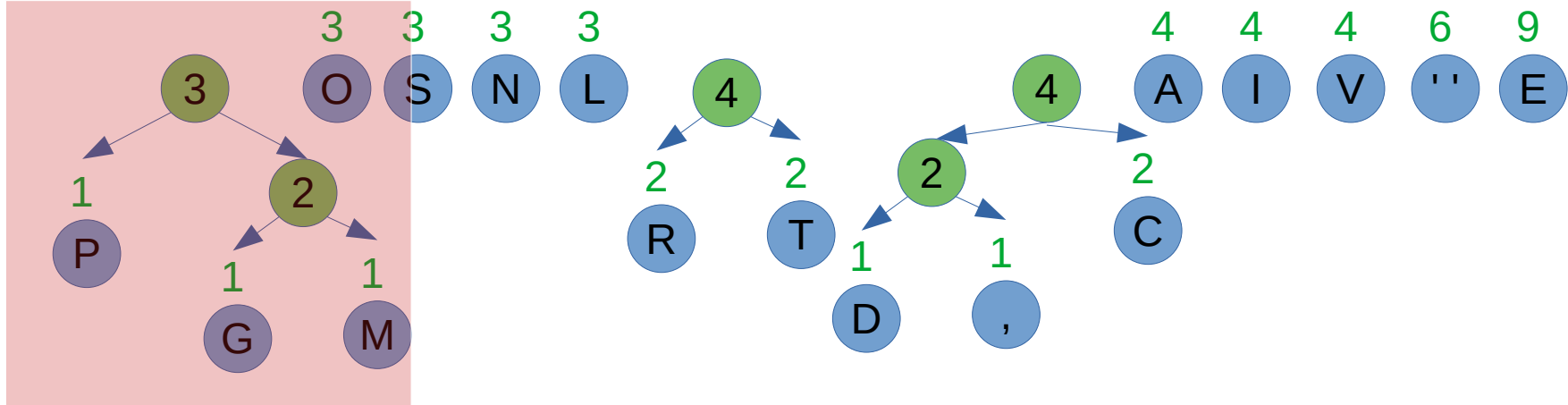
Exemplo Huffman

Unindo as árvores



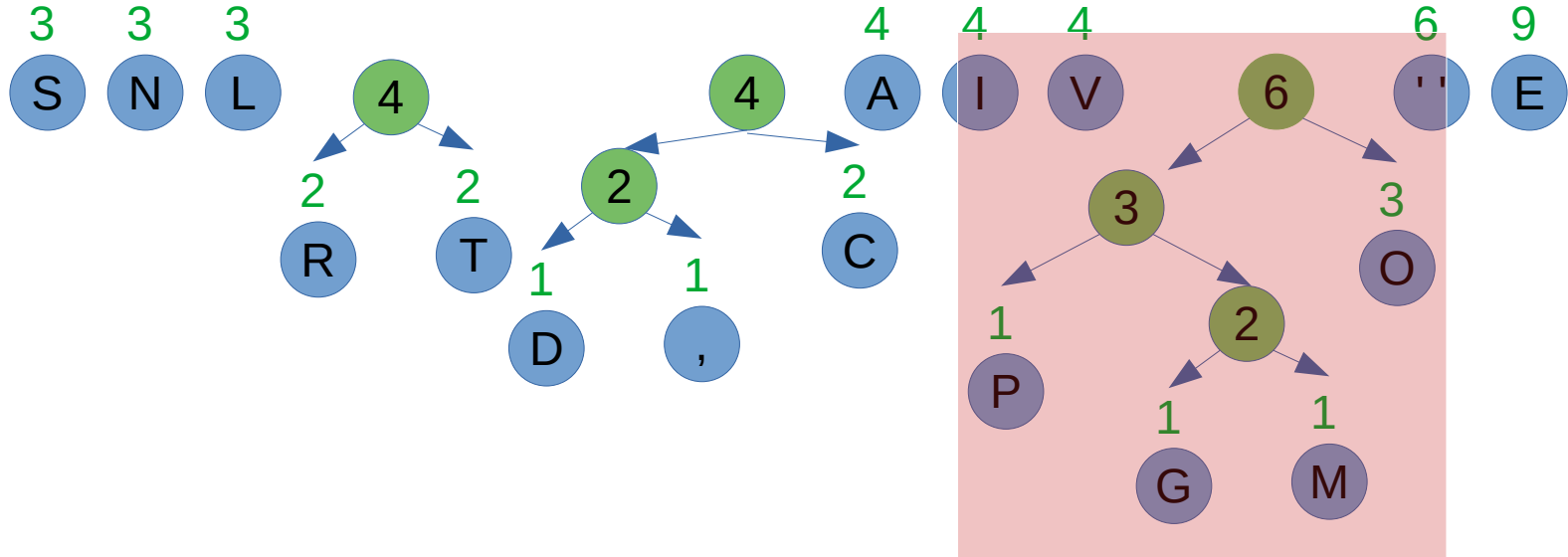
Exemplo Huffman

Unindo as árvores



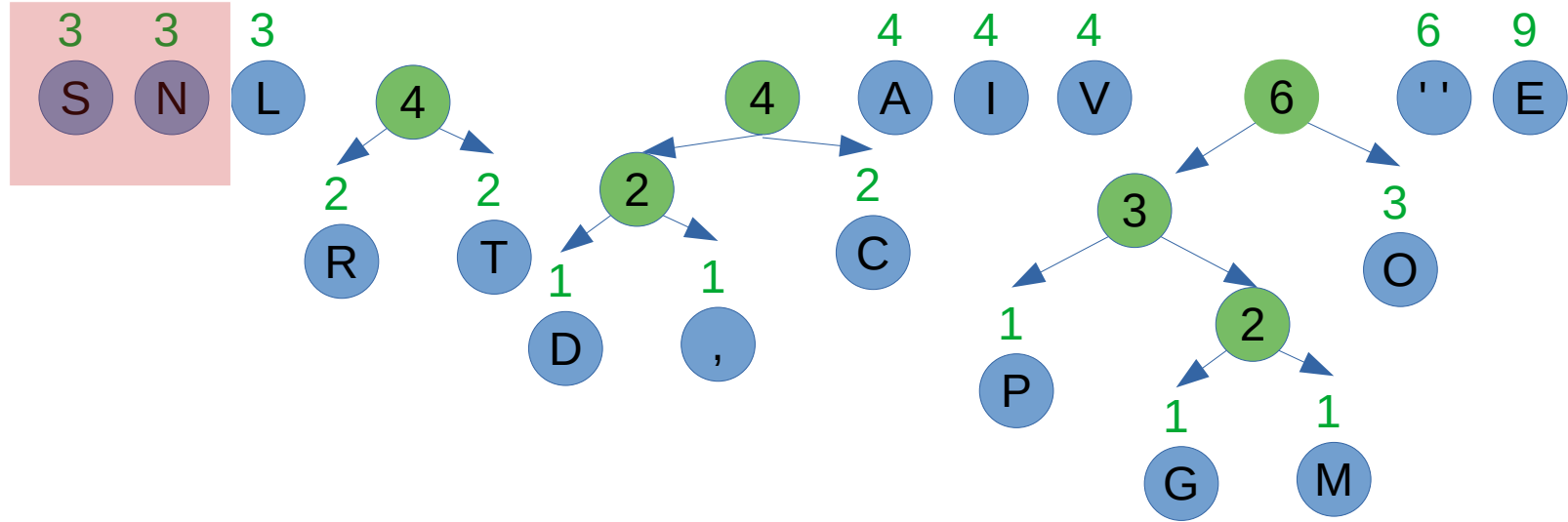
Exemplo Huffman

Unindo as árvores



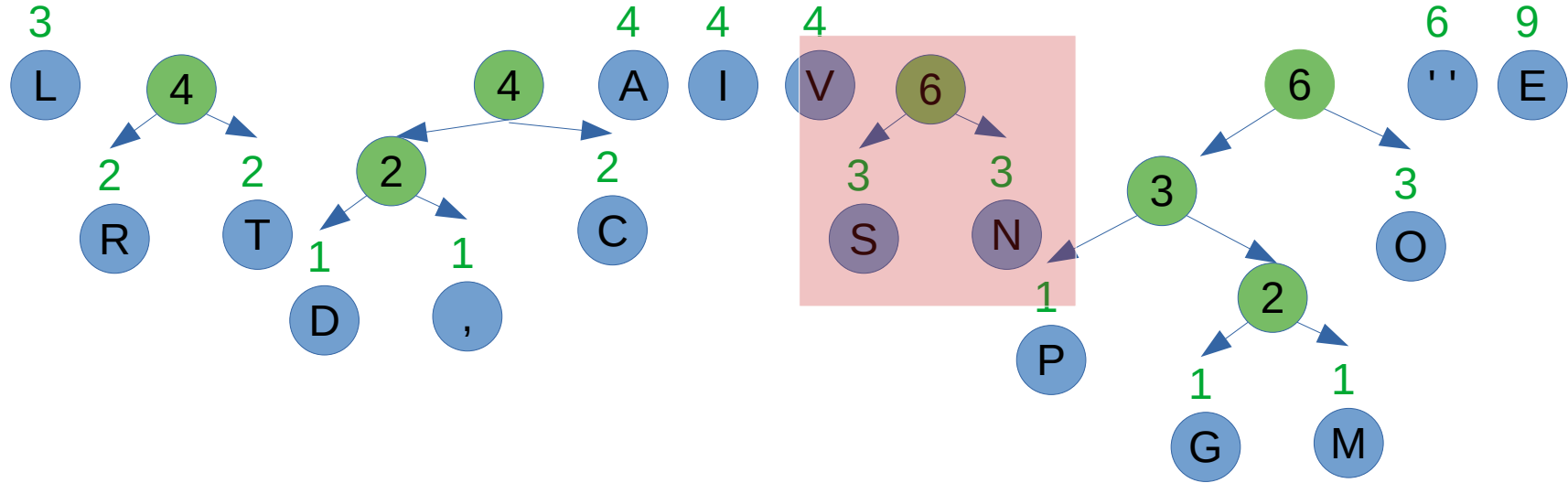
Exemplo Huffman

Unindo as árvores



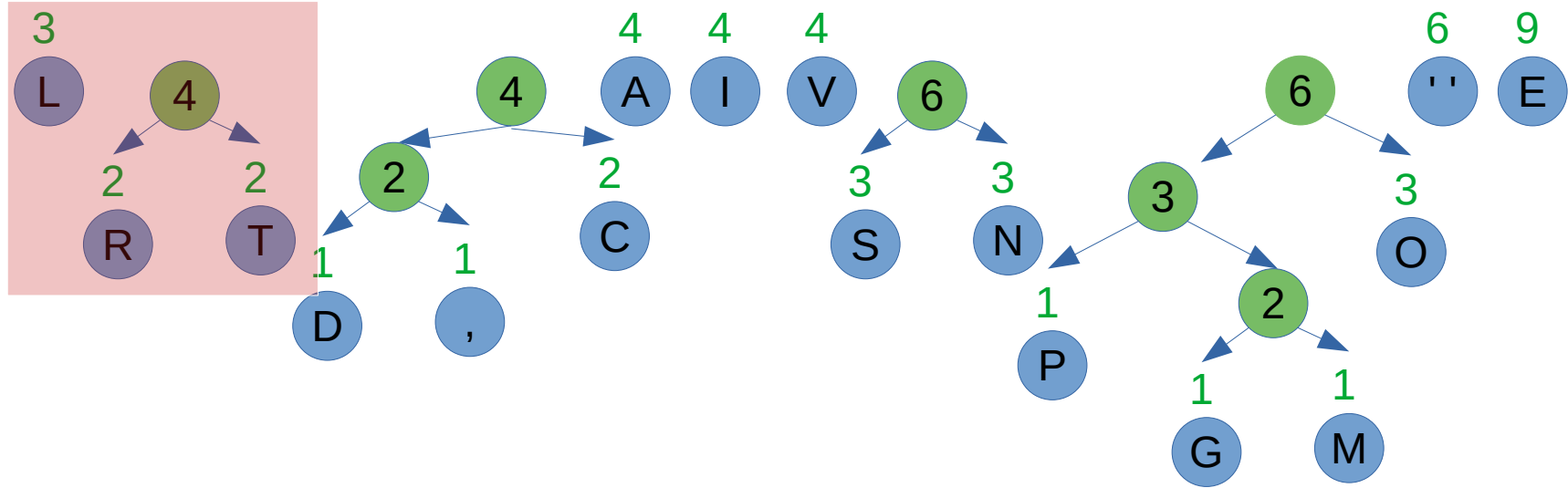
Exemplo Huffman

Unindo as árvores



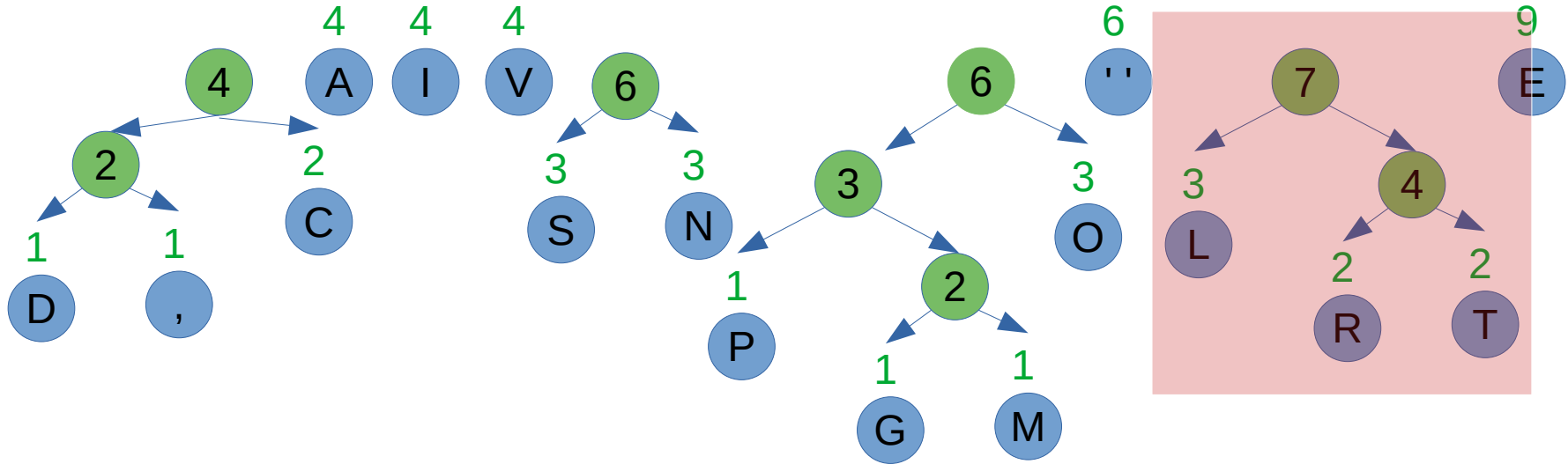
Exemplo Huffman

Unindo as árvores



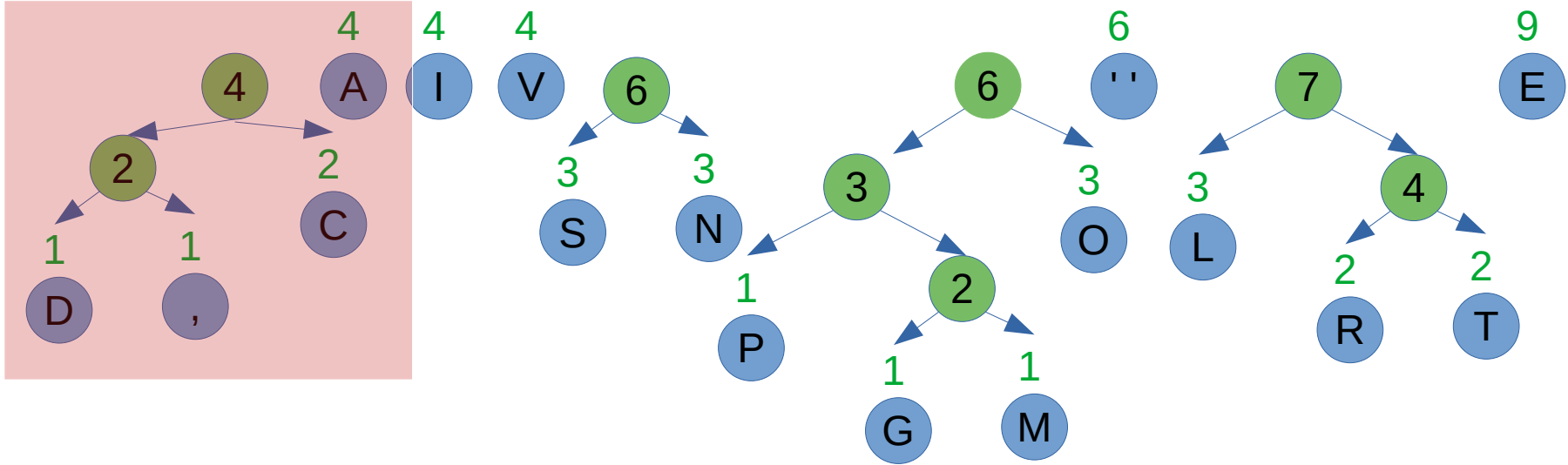
Exemplo Huffman

Unindo as árvores



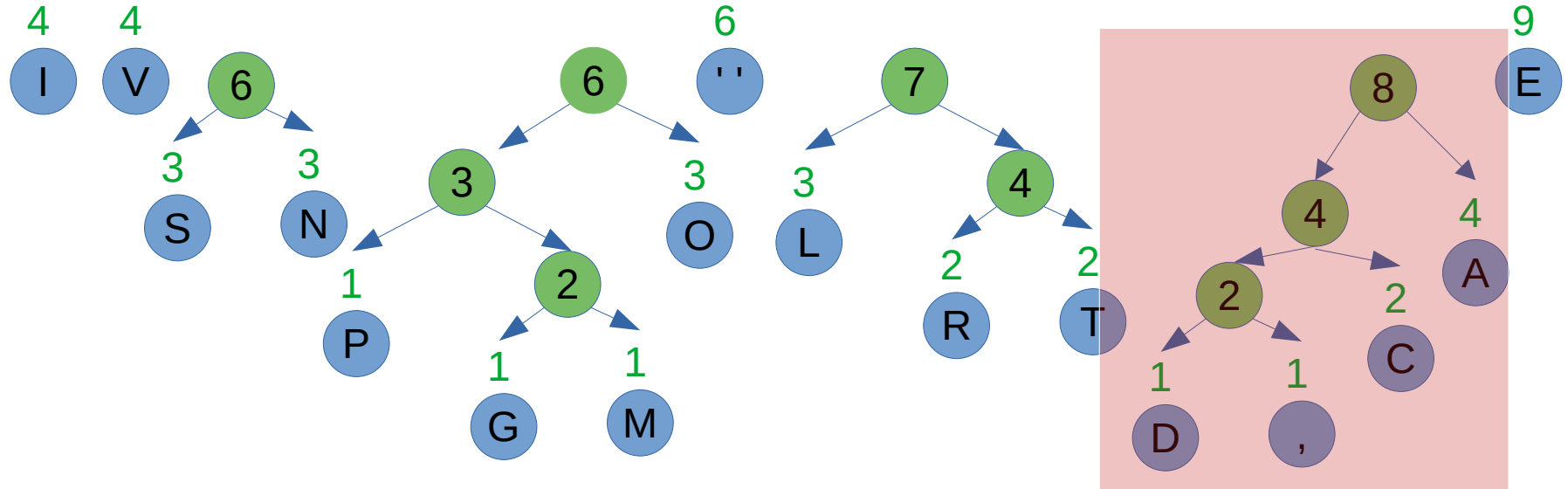
Exemplo Huffman

Unindo as árvores



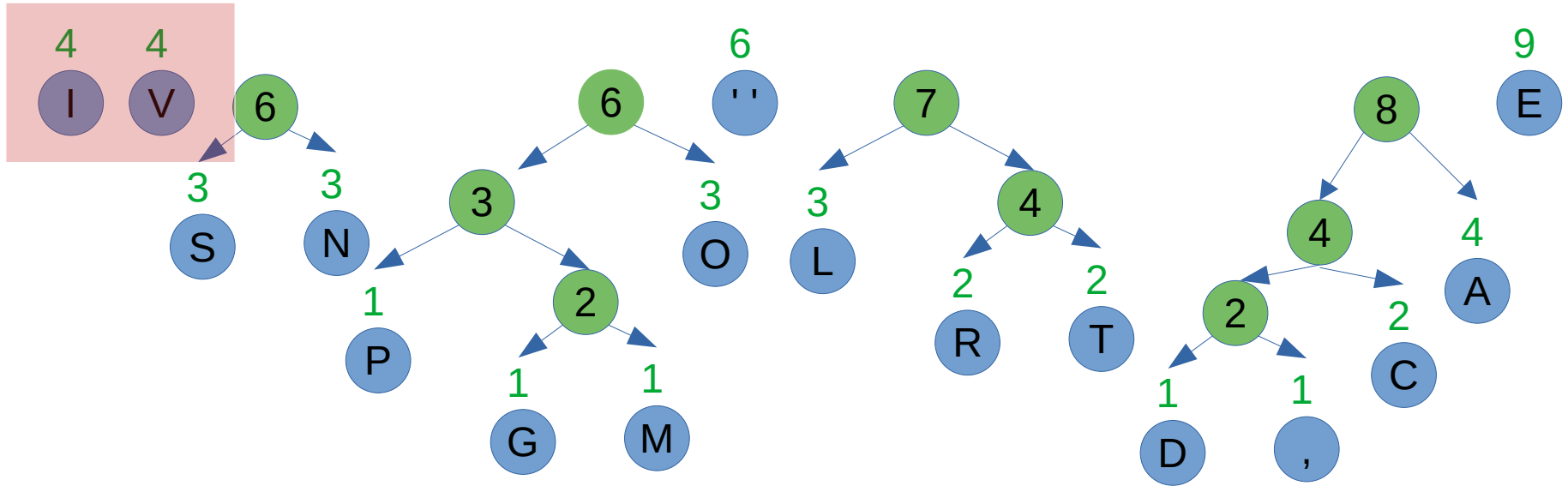
Exemplo Huffman

Unindo as árvores



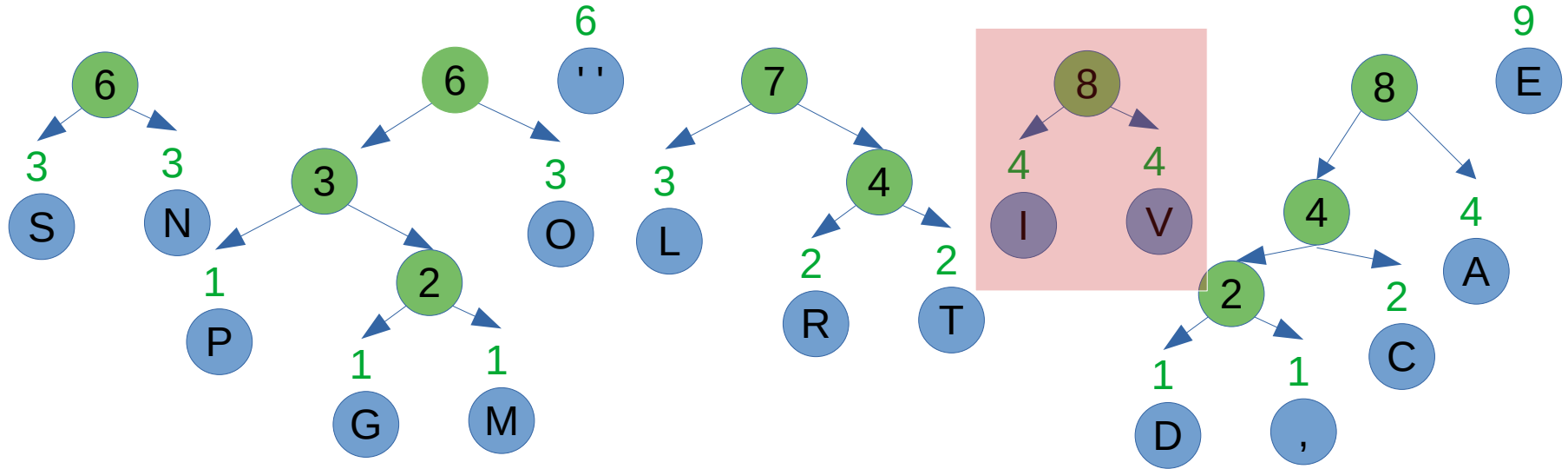
Exemplo Huffman

Unindo as árvores



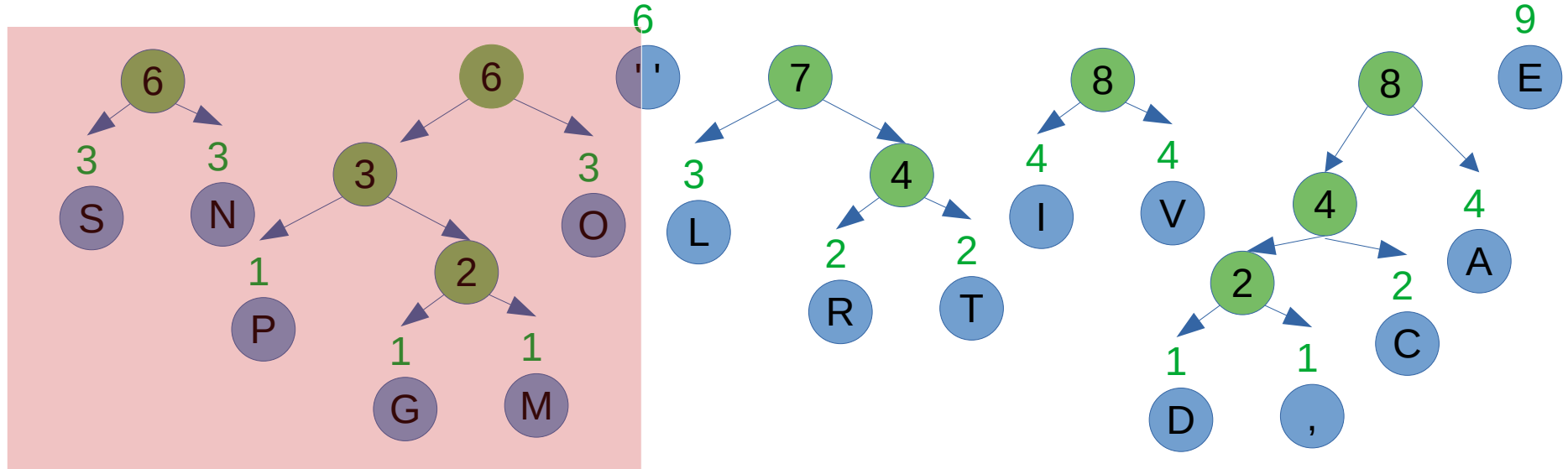
Exemplo Huffman

Unindo as árvores



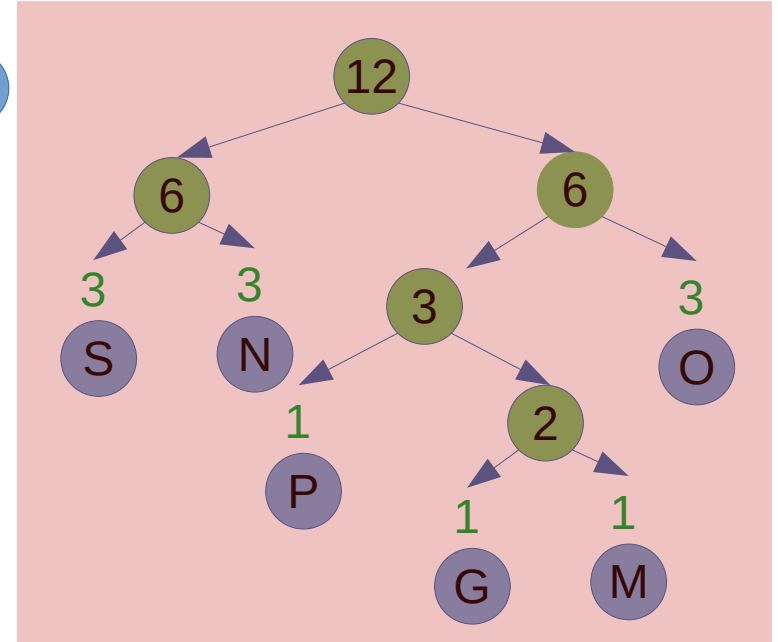
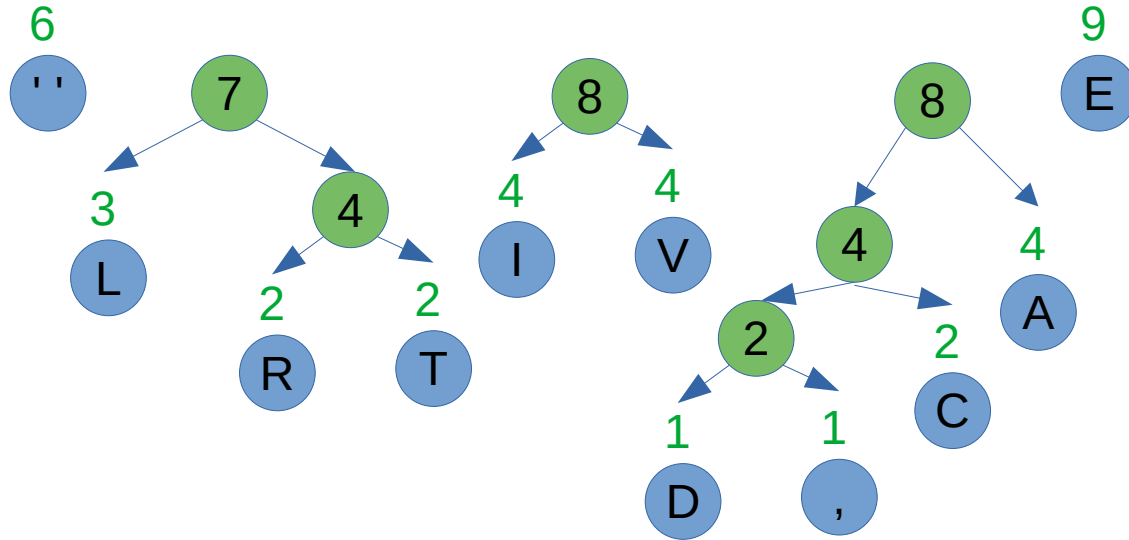
Exemplo Huffman

Unindo as árvores



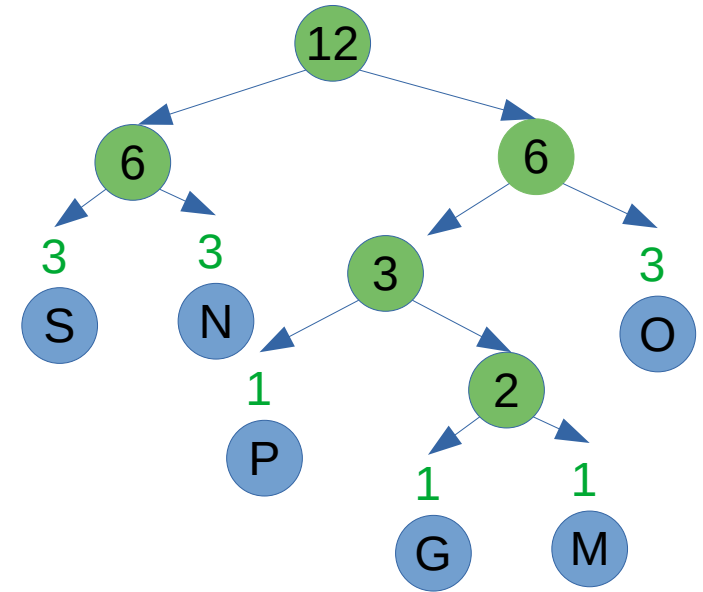
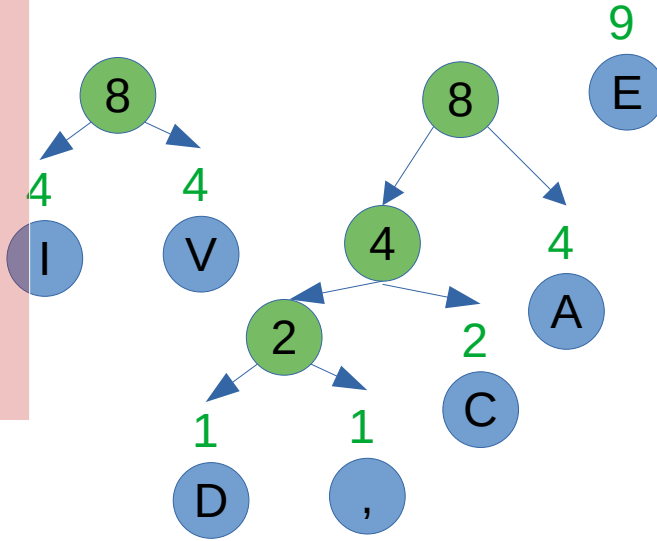
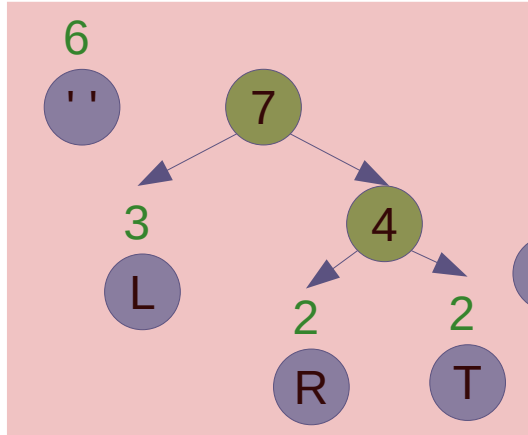
Exemplo Huffman

Unindo as árvores



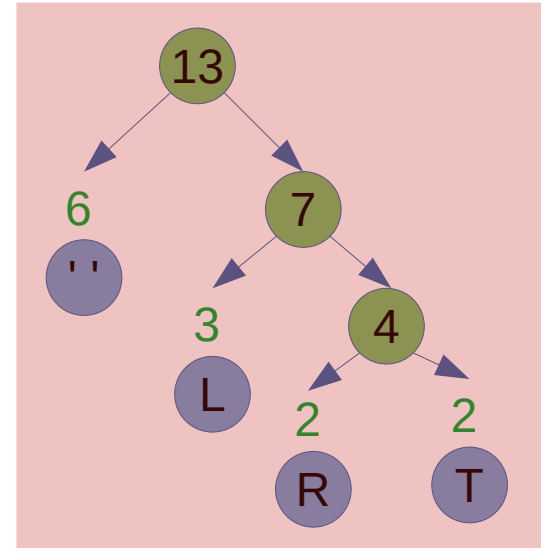
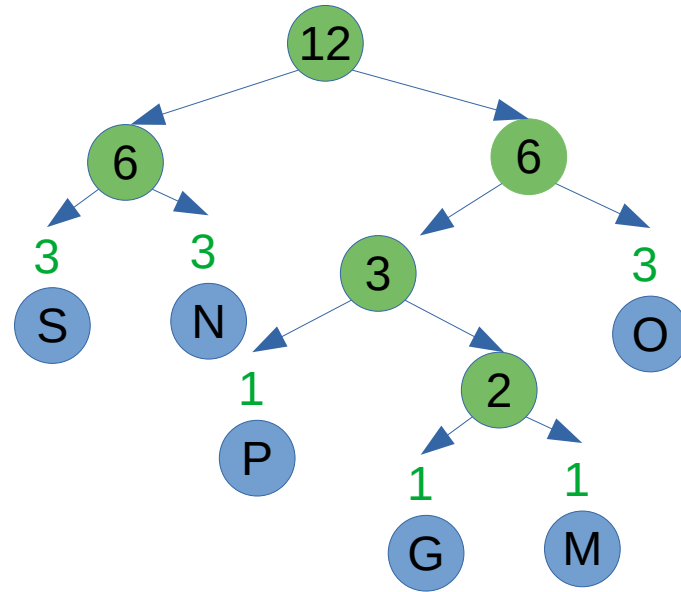
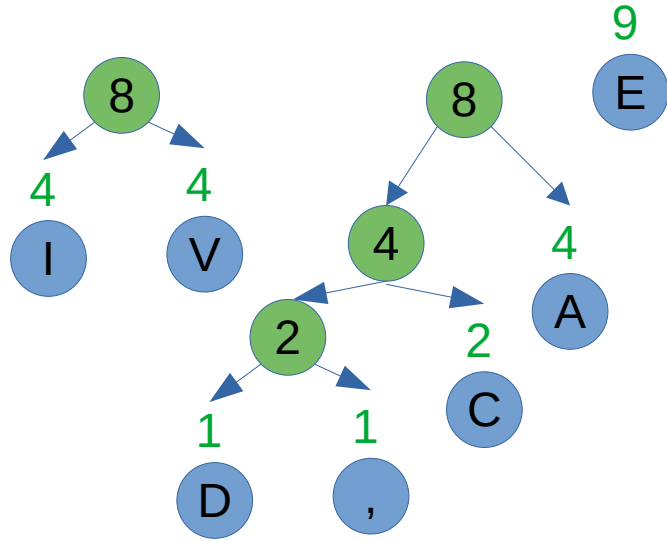
Exemplo Huffman

Unindo as árvores



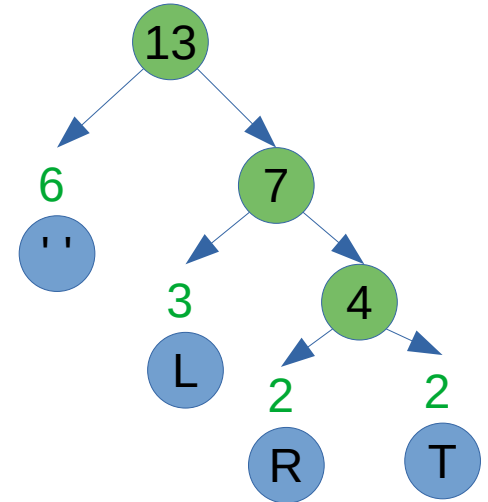
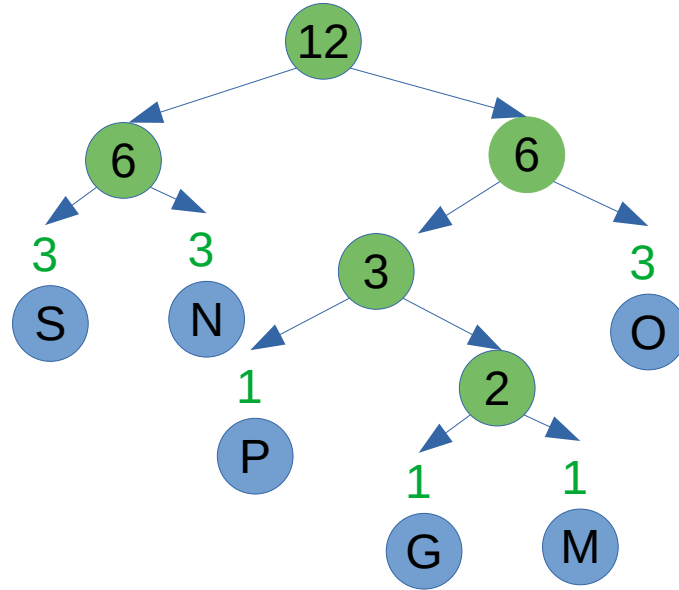
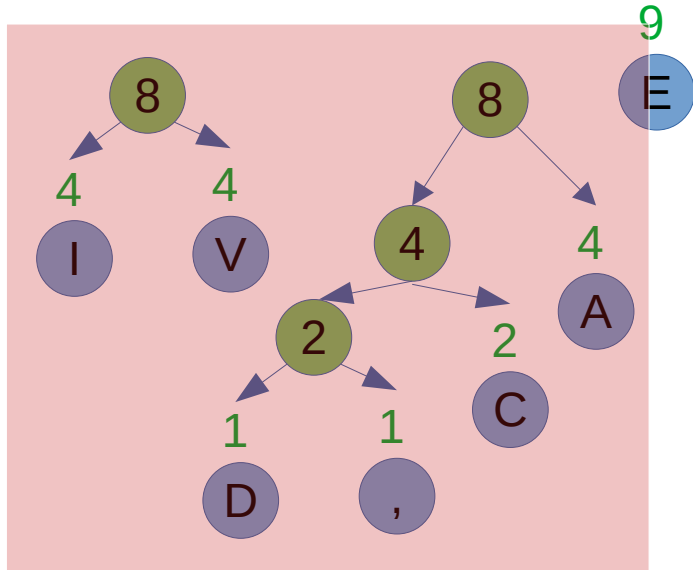
Exemplo Huffman

Unindo as árvores



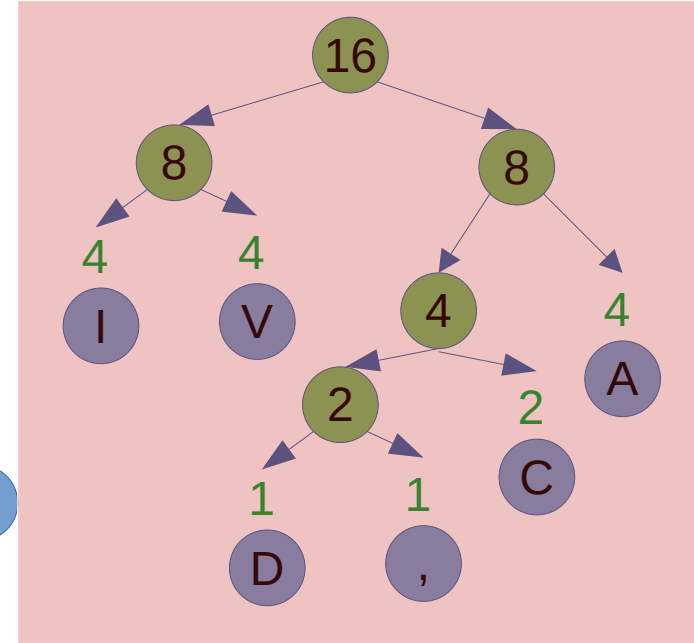
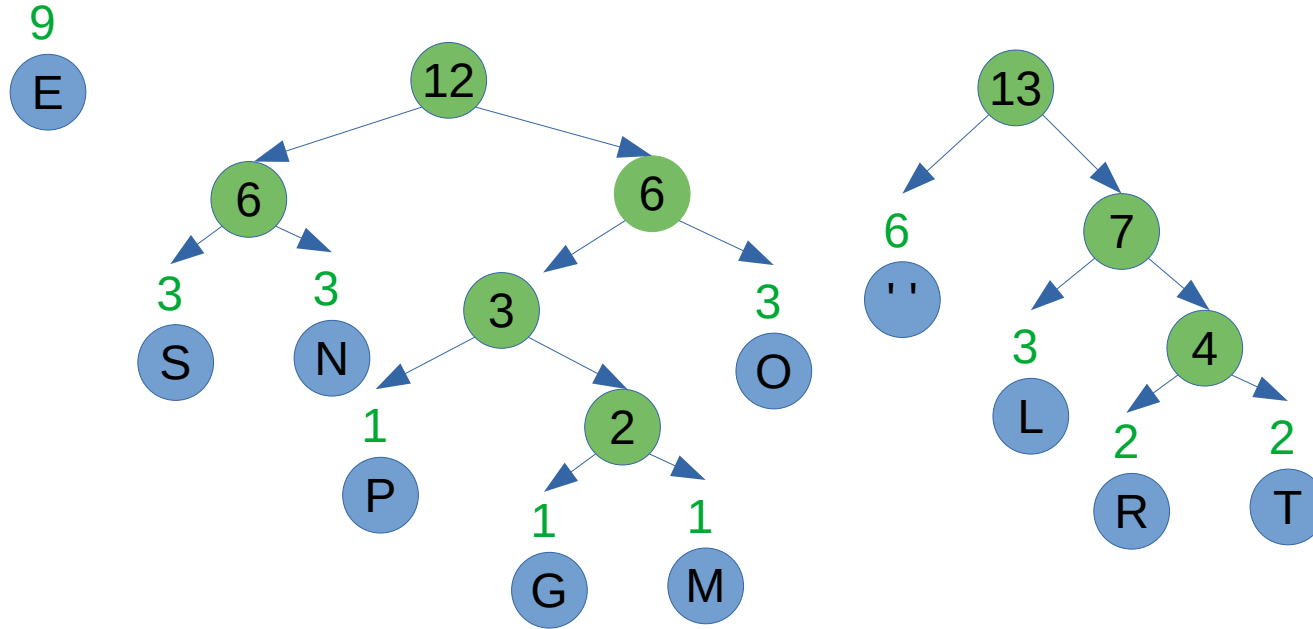
Exemplo Huffman

Unindo as árvores



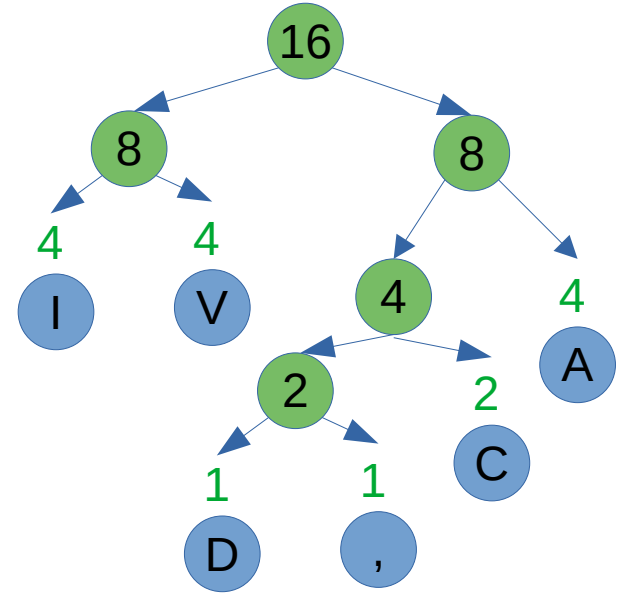
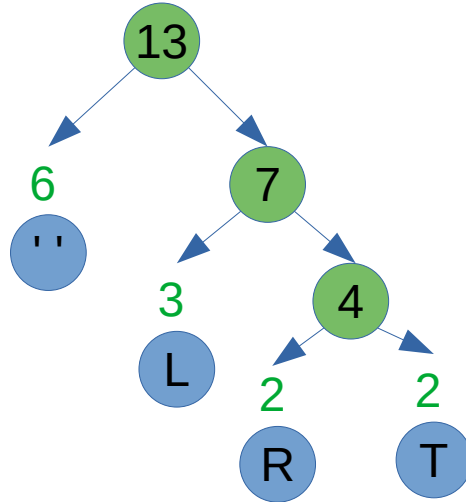
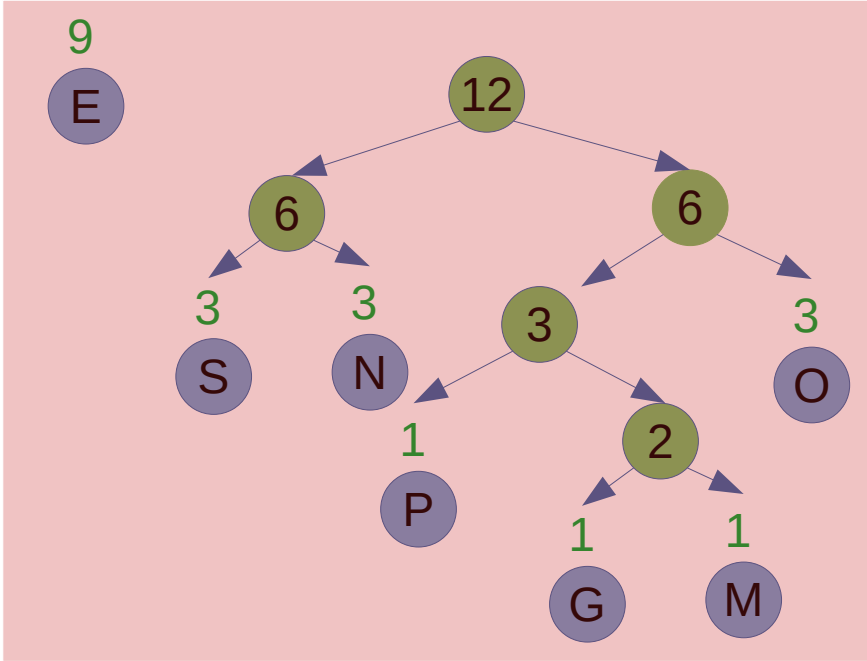
Exemplo Huffman

Unindo as árvores



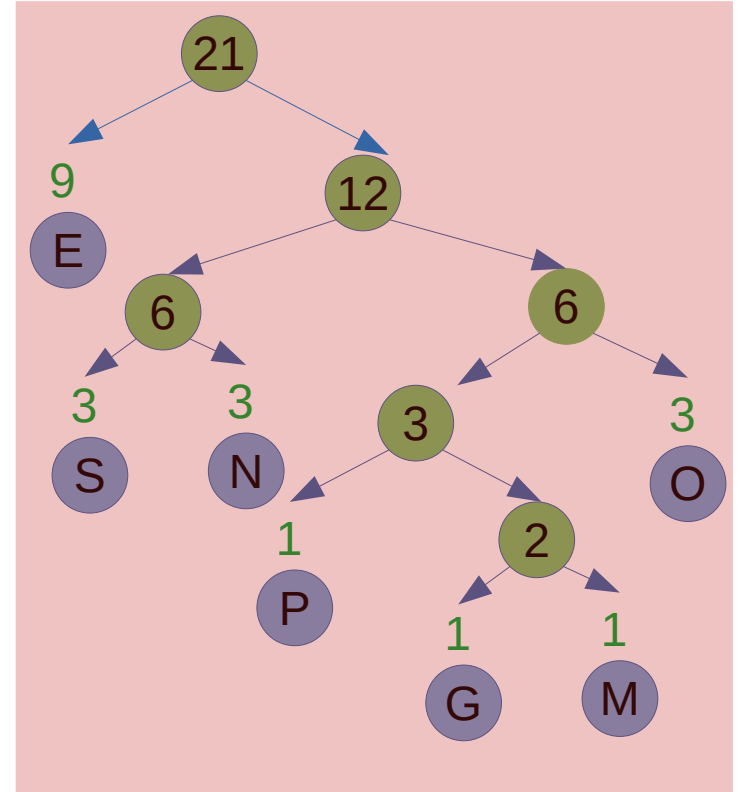
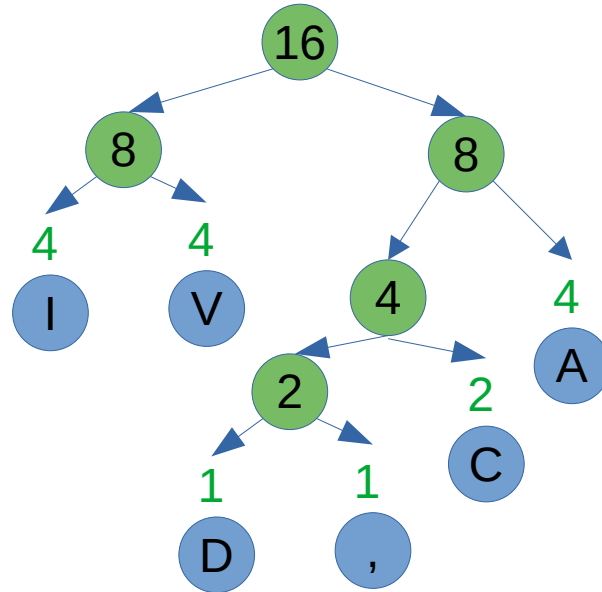
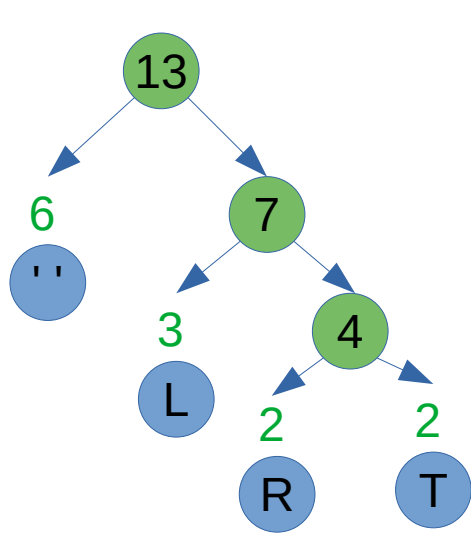
Exemplo Huffman

Unindo as árvores



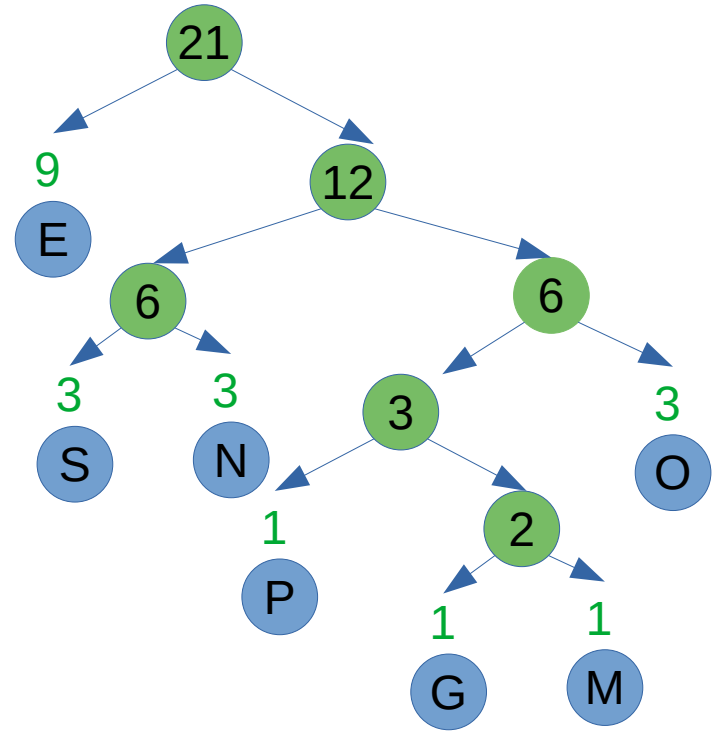
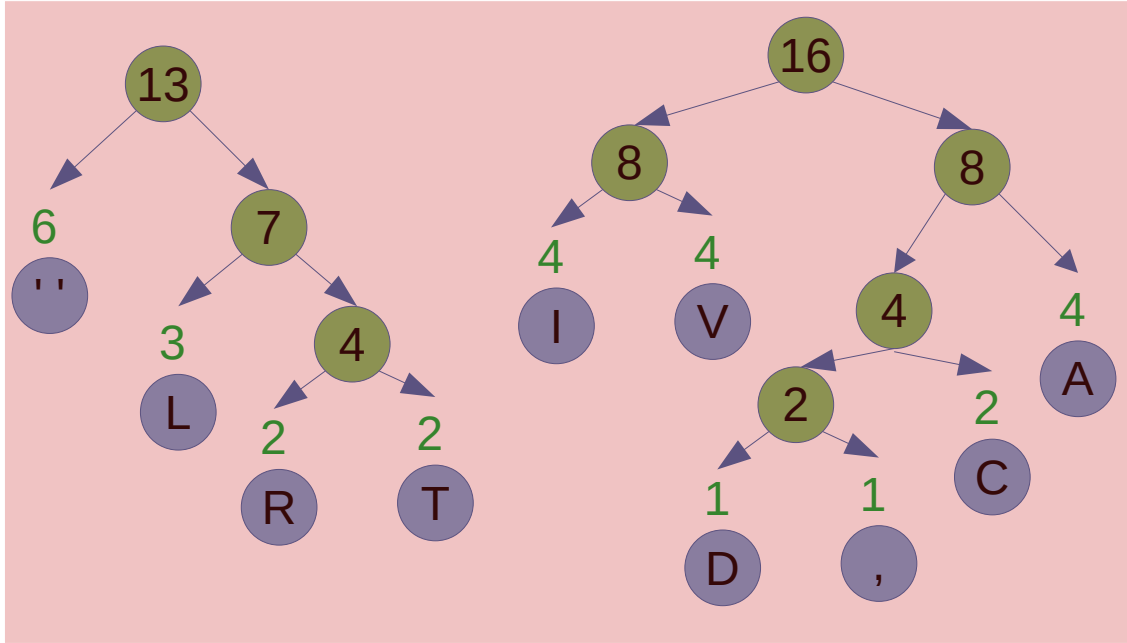
Exemplo Huffman

Unindo as árvores



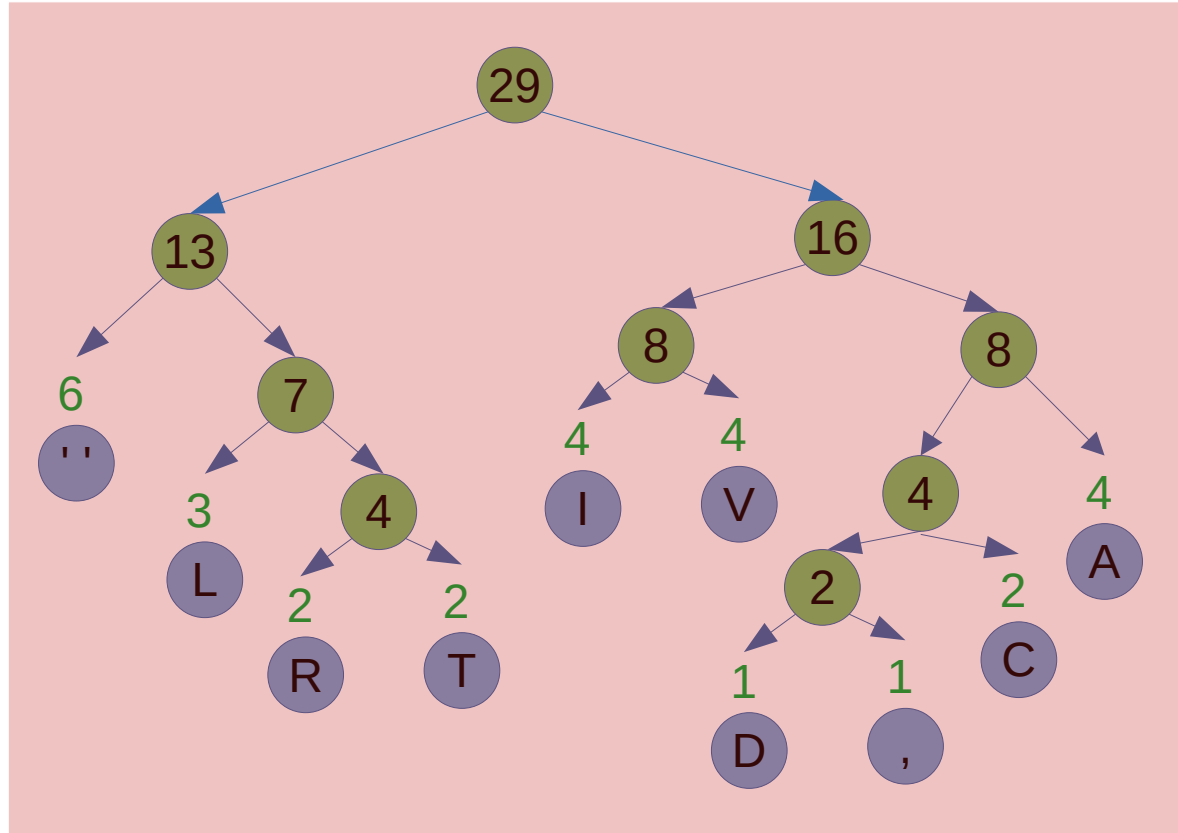
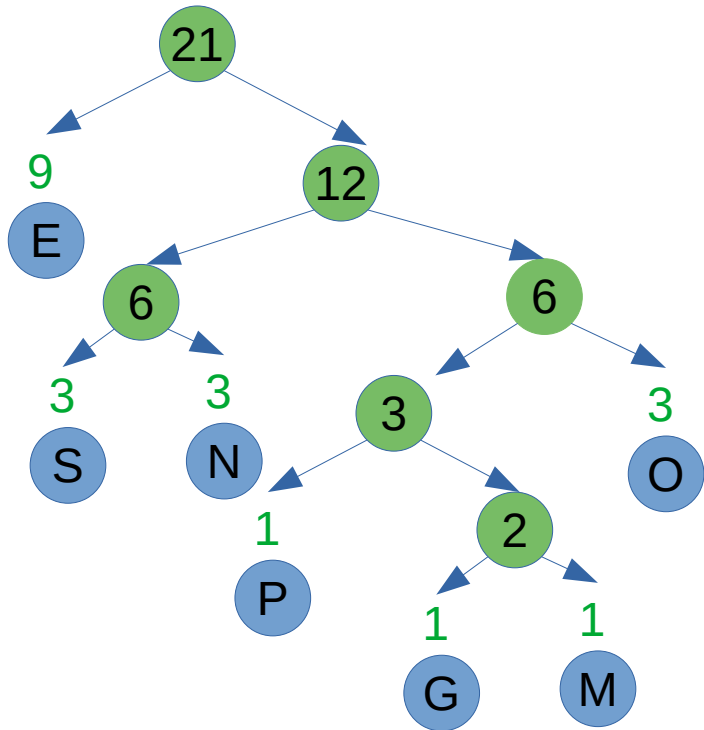
Exemplo Huffman

Unindo as árvores



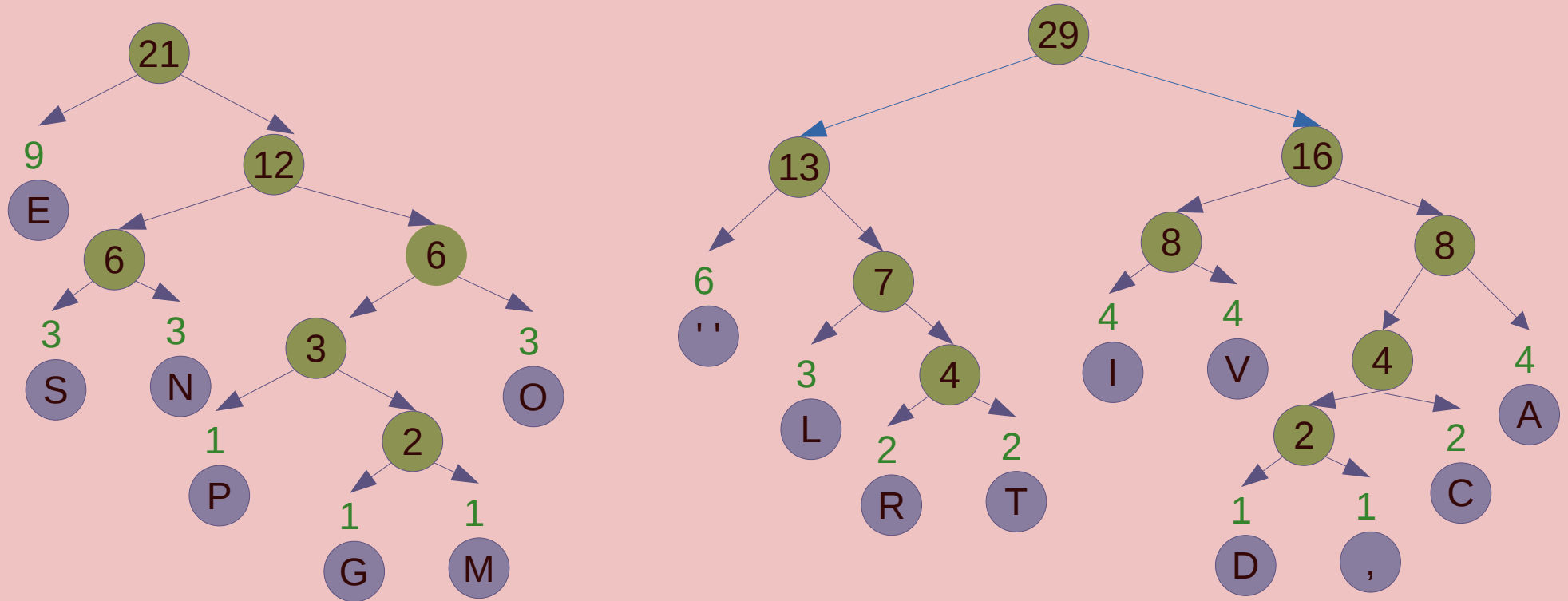
Exemplo Huffman

Unindo as árvores



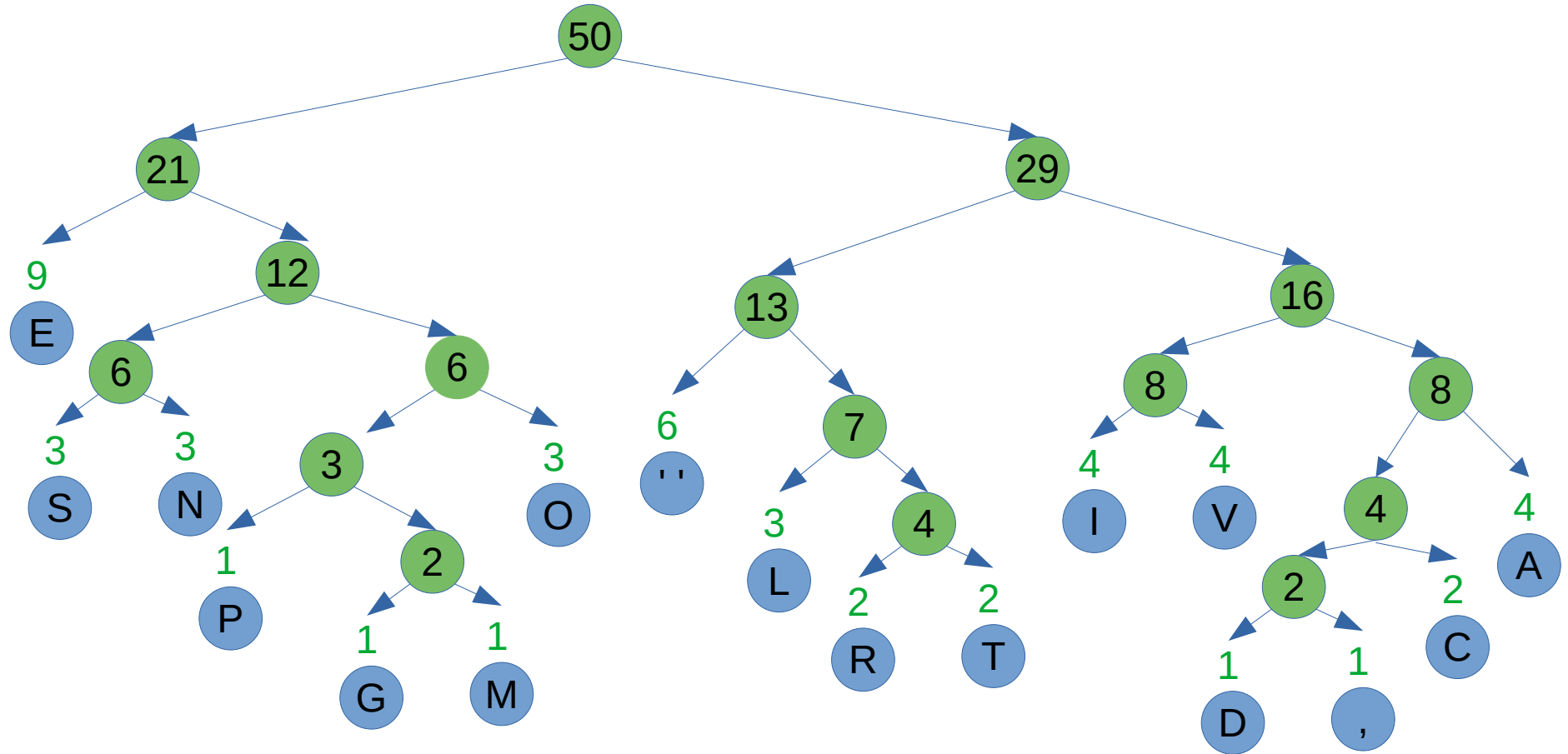
Exemplo Huffman

Unindo as árvores

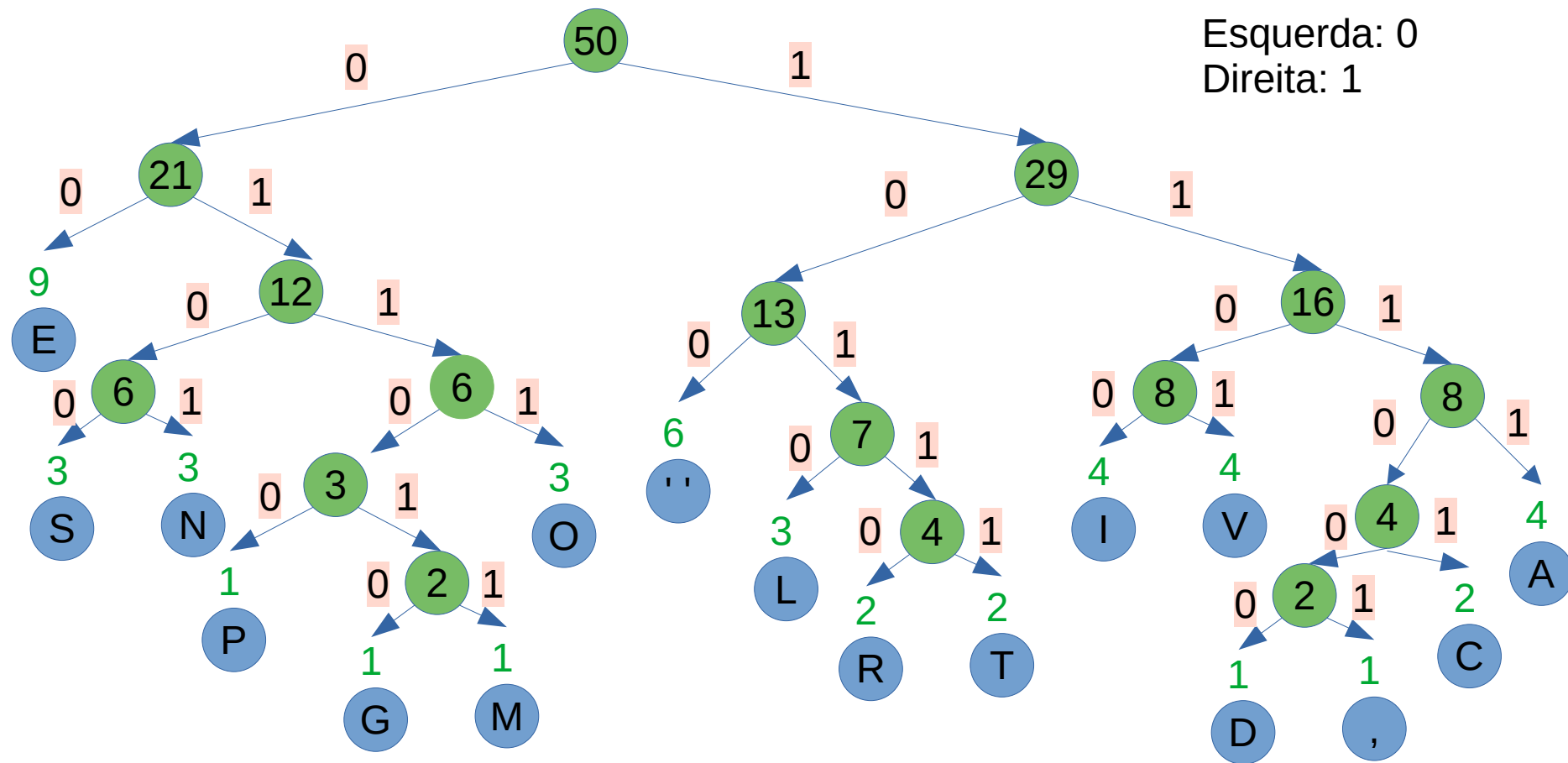


Exemplo Huffman

Unindo as árvores

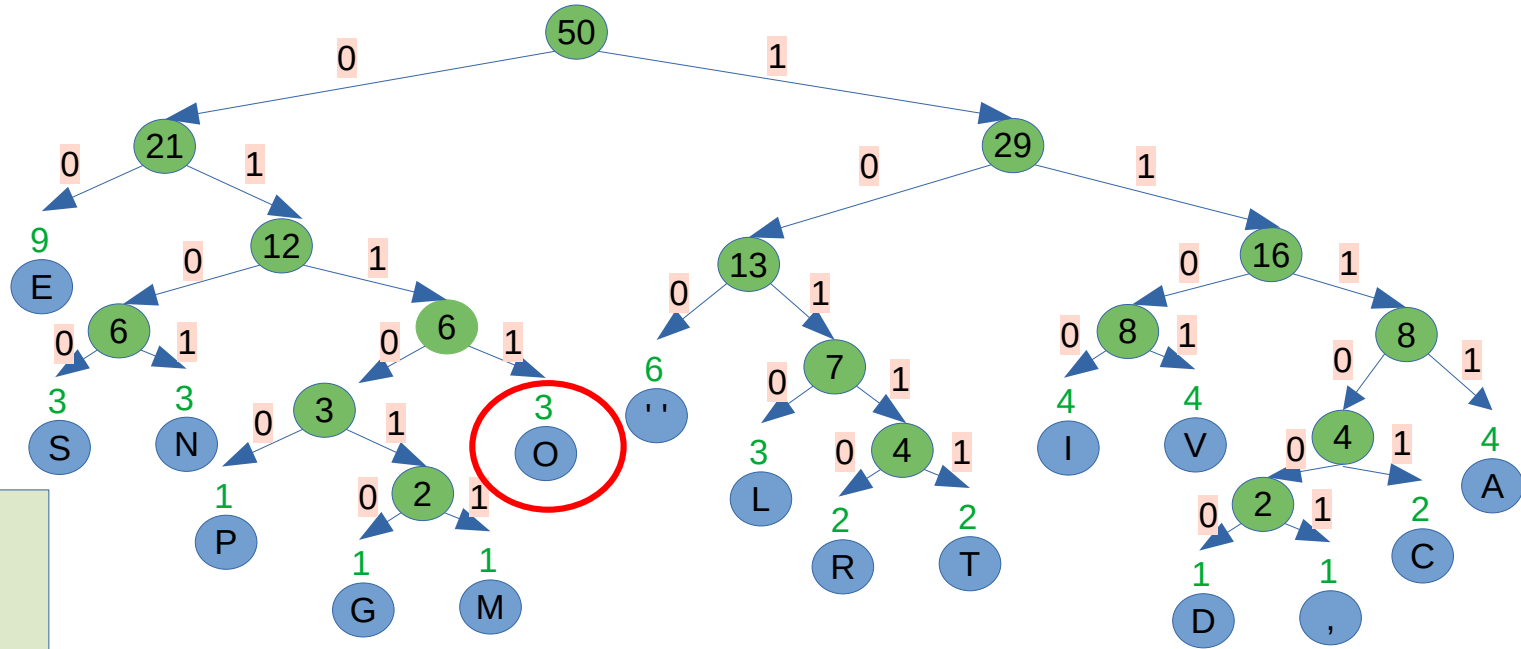


Árvore de Huffman



Exemplo Huffman

Codificando caracteres

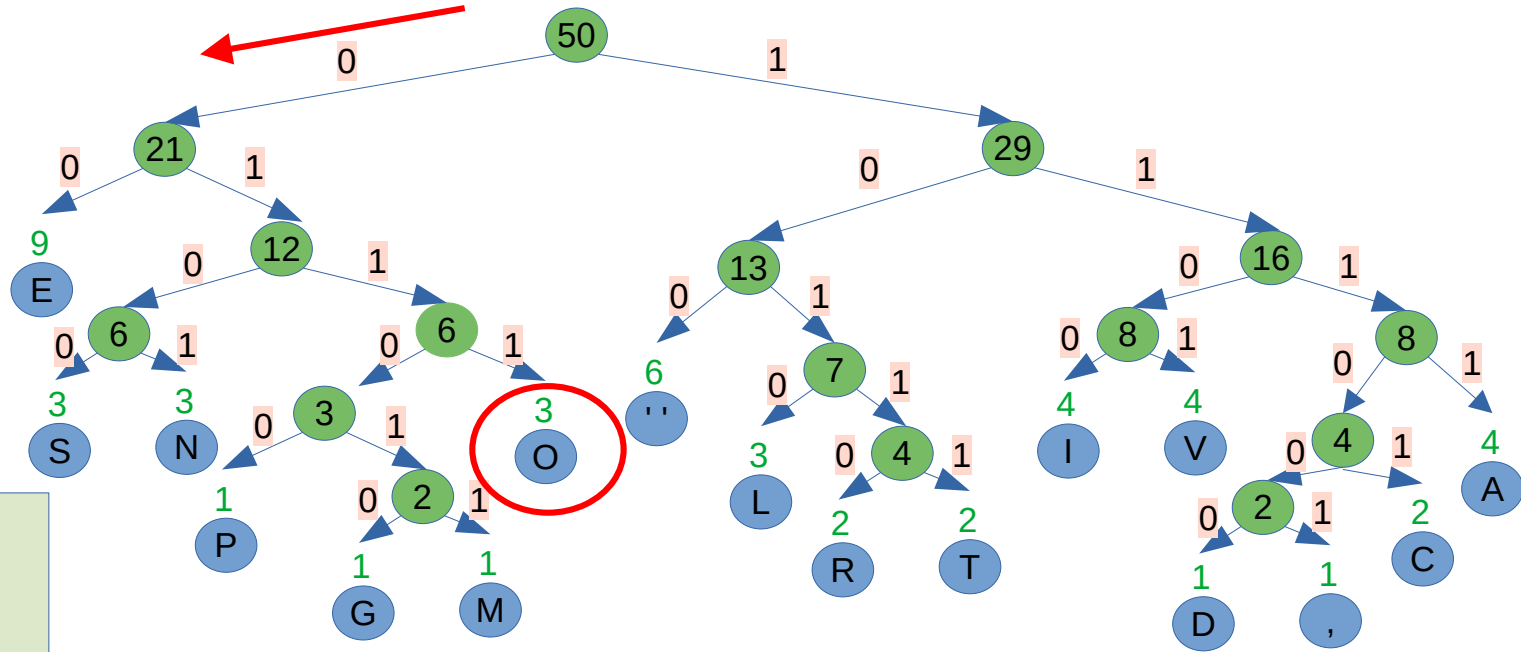


'O' →	'I' →
' ' →	'N' →
'S' →	'V' →
'C' →	'D' →
'R' →	'L' →
'A' →	' ' →
'T' →	'G' →
'E' →	'M' →

'P' →

Exemplo Huffman

Codificando caracteres

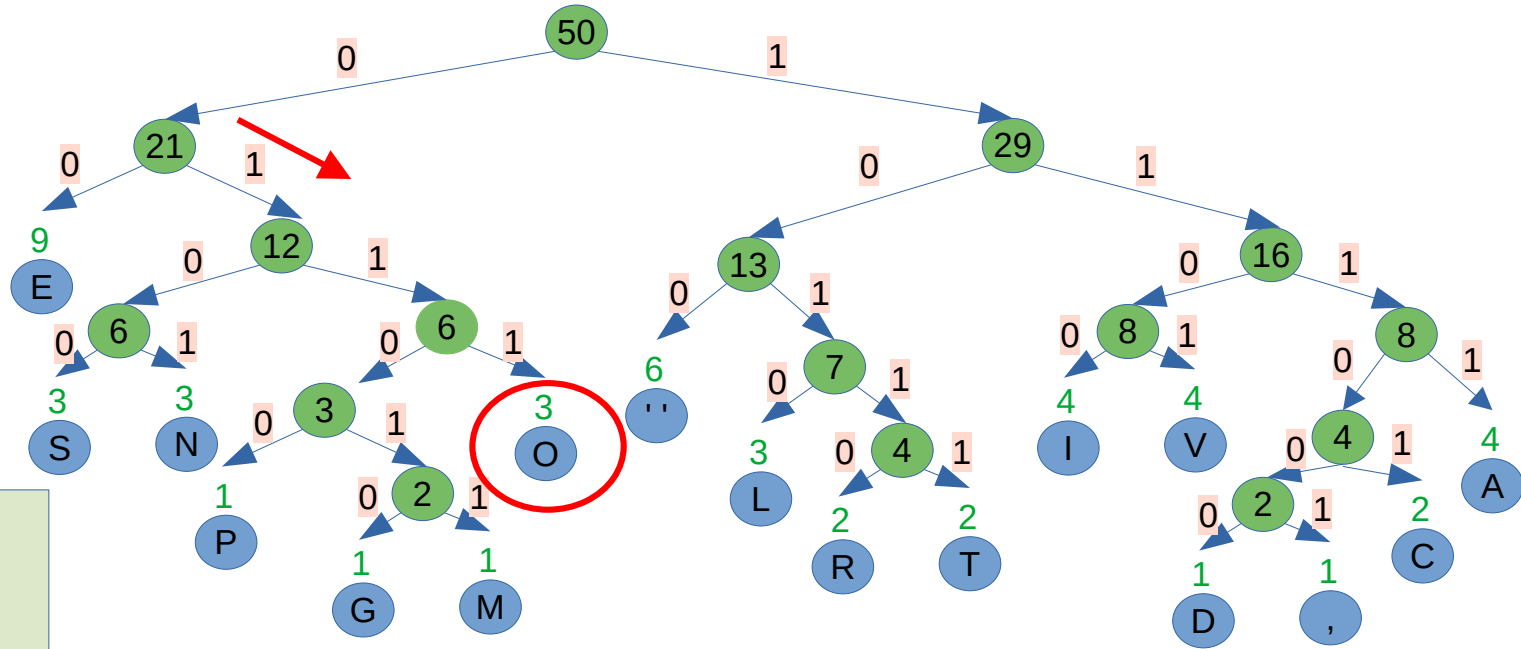


'O' → 0	'I' →
' ' →	'N' →
'S' →	'V' →
'C' →	'D' →
'R' →	'L' →
'A' →	' ' →
'T' →	'G' →
'E' →	'M' →

'P' →

Exemplo Huffman

Codificando caracteres

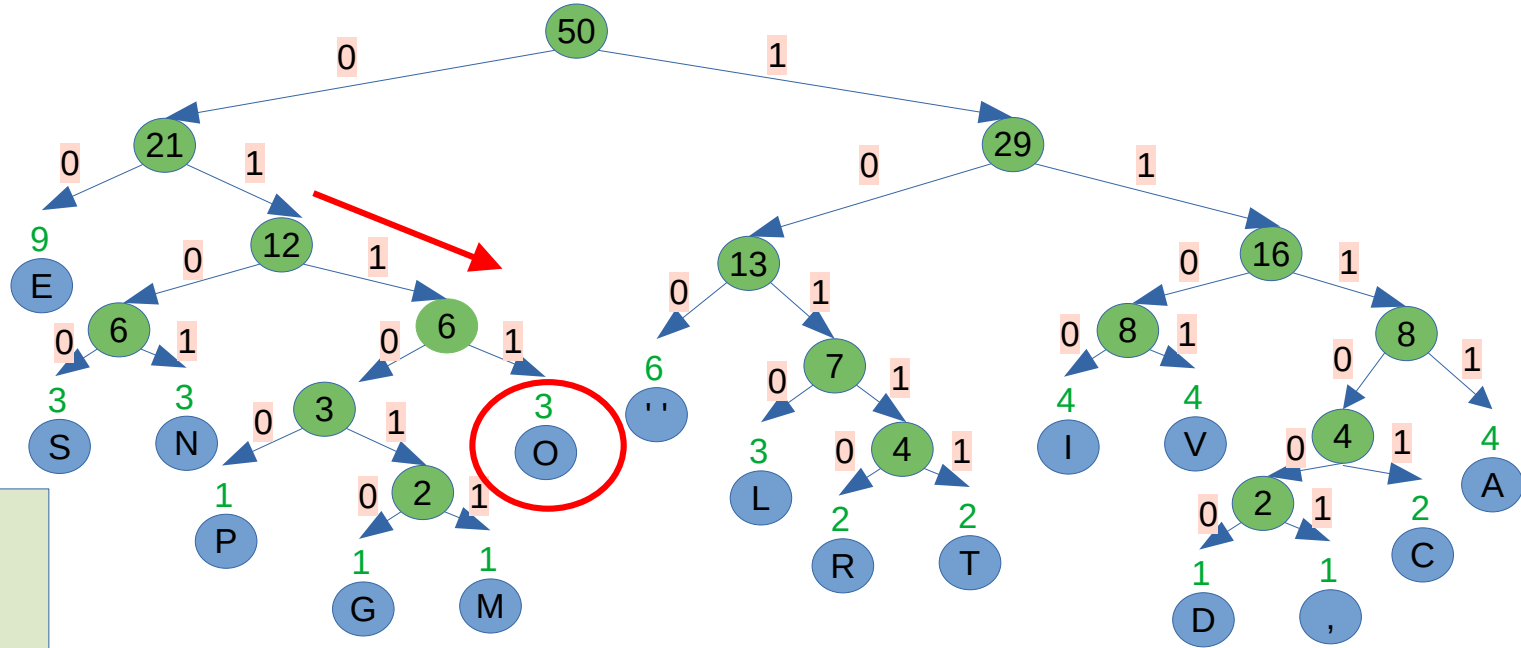


'O' → 01	'I' →
' ' →	'N' →
'S' →	'V' →
'C' →	'D' →
'R' →	'L' →
'A' →	' ' →
'T' →	'G' →
'E' →	'M' →

'P' →

Exemplo Huffman

Codificando caracteres

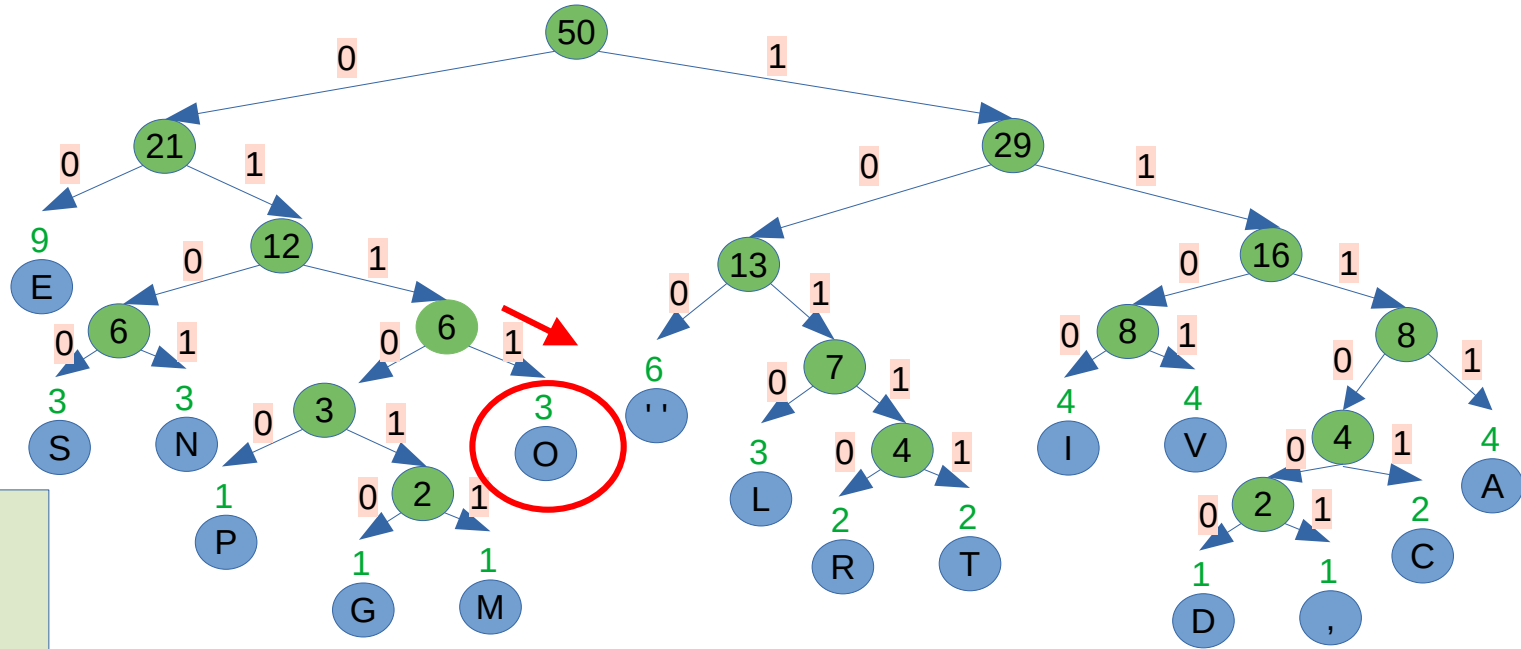


'O' → 011	'I' →
' ' →	'N' →
'S' →	'V' →
'C' →	'D' →
'R' →	'L' →
'A' →	' ' →
'T' →	'G' →
'E' →	'M' →

'P' →

Exemplo Huffman

Codificando caracteres

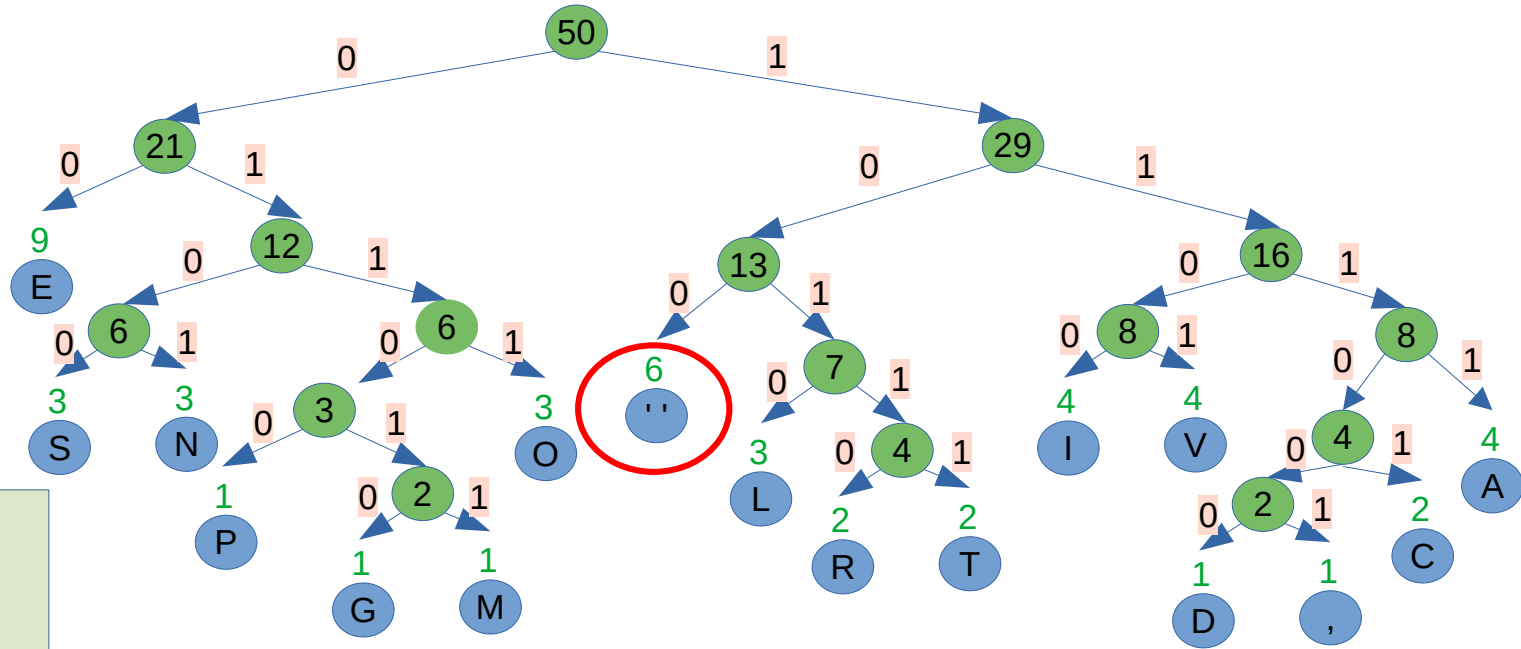


'O' → 0111	'I' →
' ' →	'N' →
'S' →	'V' →
'C' →	'D' →
'R' →	'L' →
'A' →	' ' →
'T' →	'G' →
'E' →	'M' →

'P' →

Exemplo Huffman

Codificando caracteres

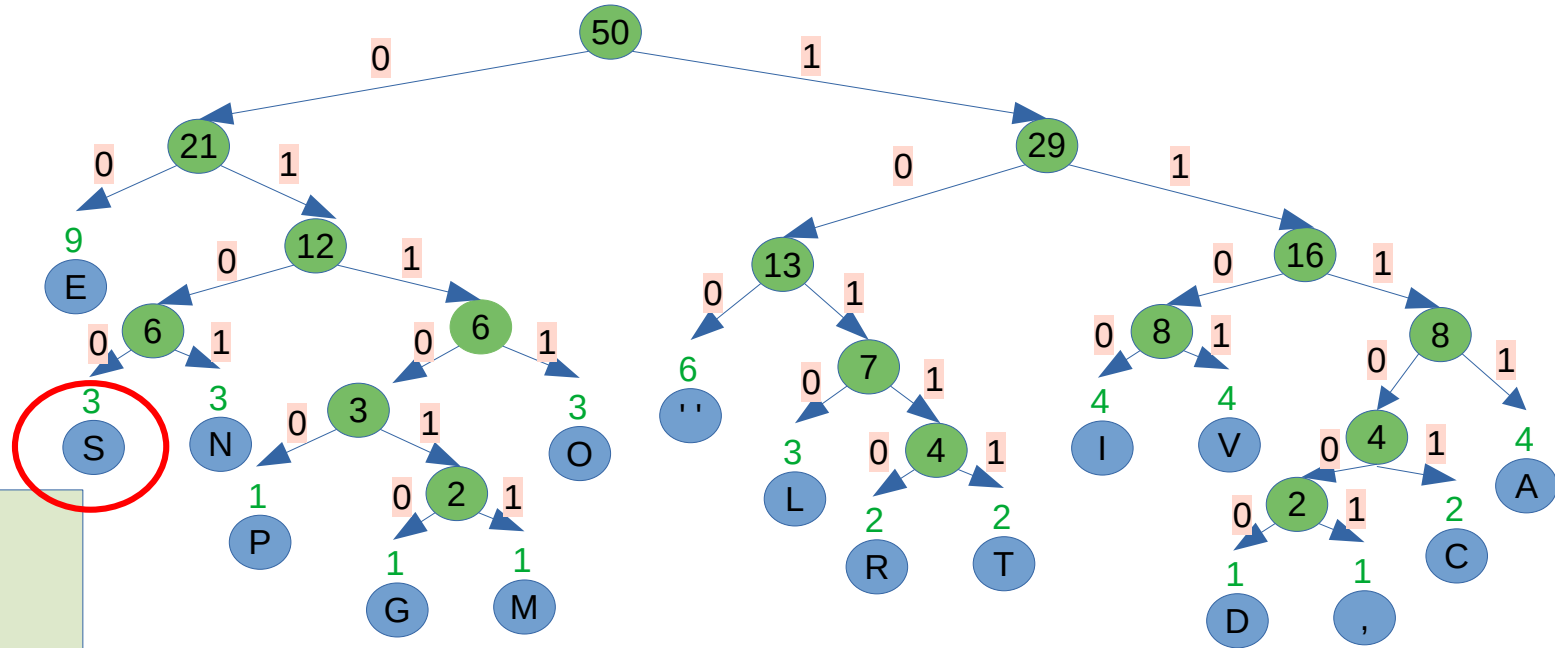


'O' → 0111	'I' →
' ' → 100	'N' →
'S' →	'V' →
'C' →	'D' →
'R' →	'L' →
'A' →	'.' →
'T' →	'G' →
'E' →	'M' →

'P' →

Exemplo Huffman

Codificando caracteres

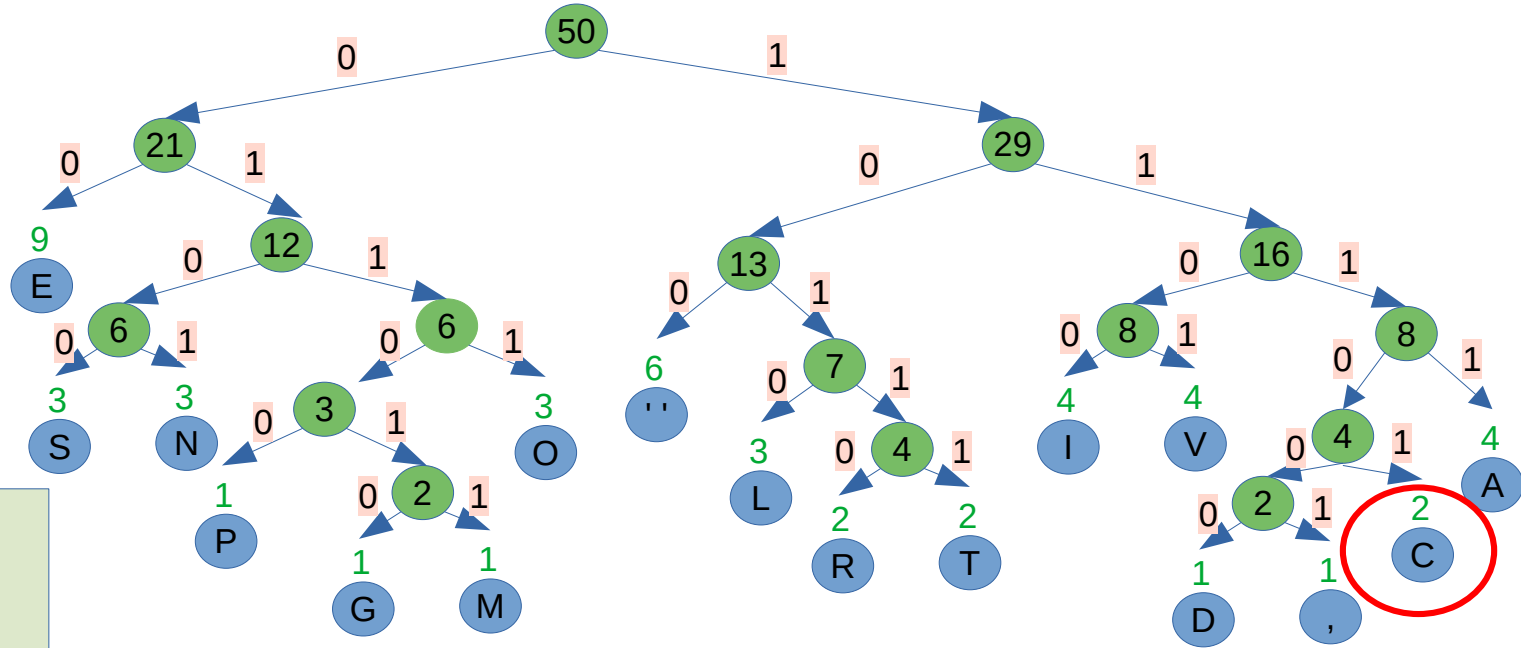


'O' → 0111	'I' →
' ' → 100	'N' →
'S' → 0100	'V' →
'C' →	'D' →
'R' →	'L' →
'A' →	' ' →
'T' →	'G' →
'E' →	'M' →

'P' →

Exemplo Huffman

Codificando caracteres

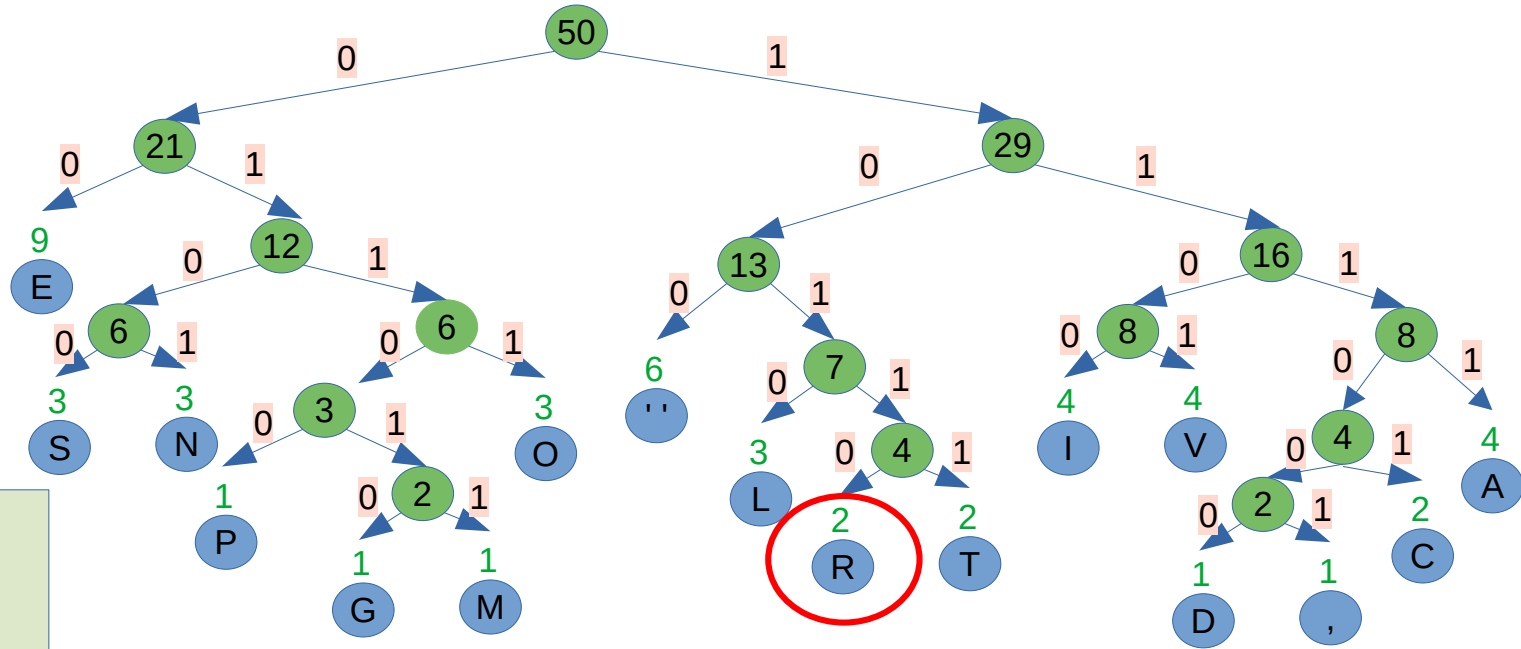


'O' → 0111	'I' →
' ' → 100	'N' →
'S' → 0100	'V' →
'C' → 11101	'D' →
'R' →	'L' →
'A' →	' ' →
'T' →	'G' →
'E' →	'M' →

'P' →

Exemplo Huffman

Codificando caracteres

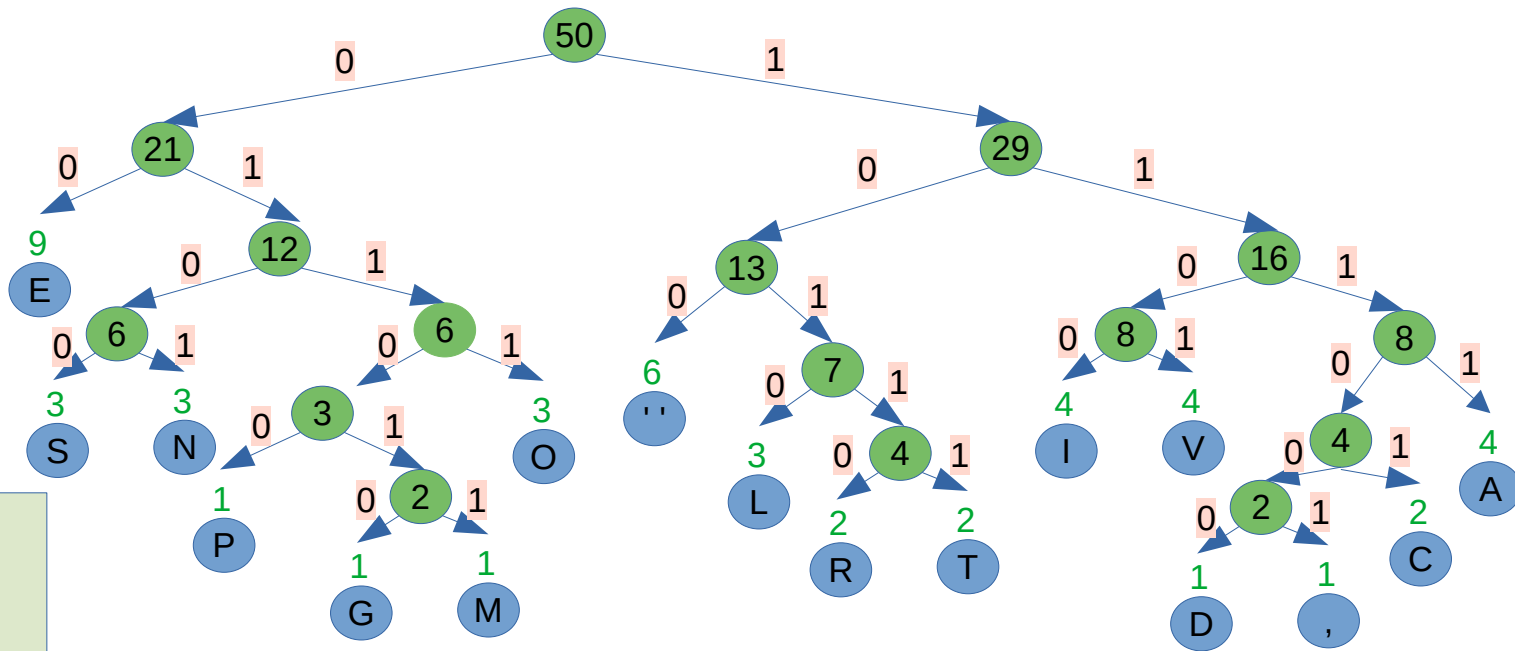


'O' → 0111	'I' →
' ' → 100	'N' →
'S' → 0100	'V' →
'C' → 11101	'D' →
'R' → 10110	'L' →
'A' →	' ' →
'T' →	'G' →
'E' →	'M' →

'P' →

Exemplo Huffman

Codificando caracteres

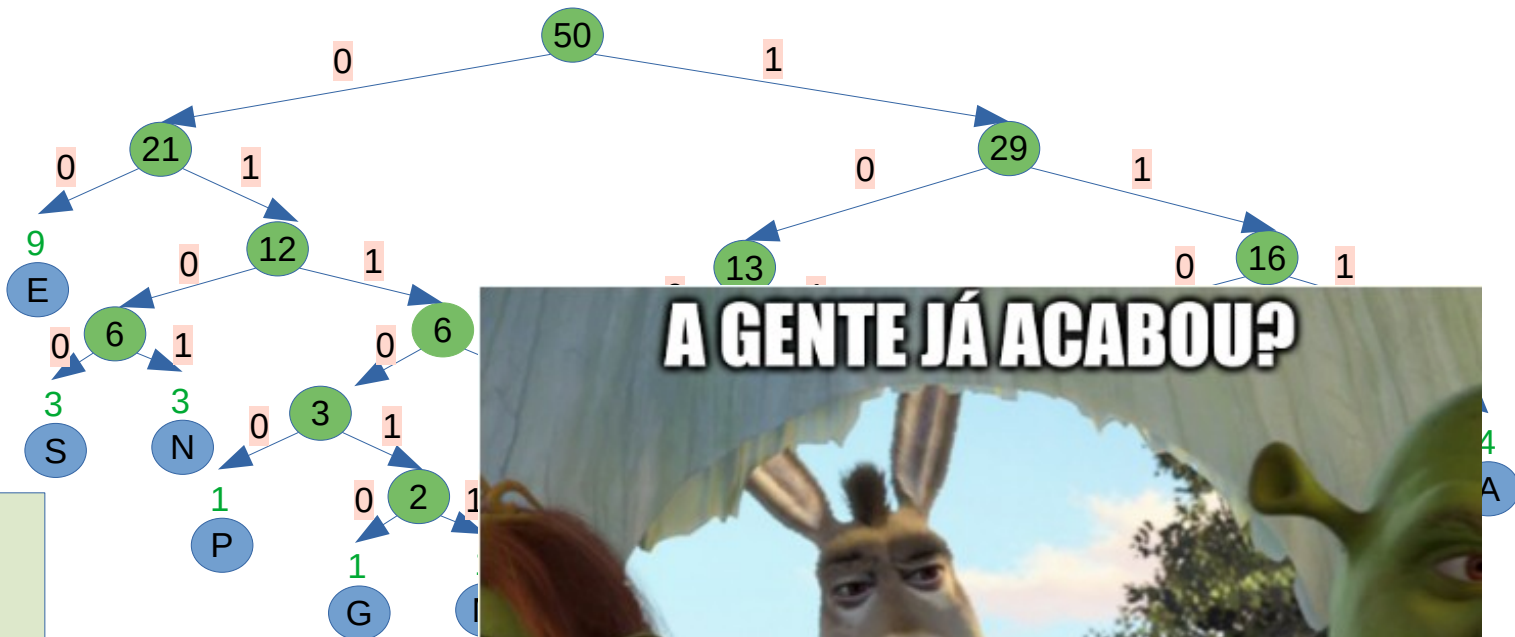


'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	' ,' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011

'P' → 01100

Exemplo Huffman

Codificando caracteres



'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	',' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011

'P' → 01100



Exemplo Huffman

Codificando a entrada

'O' → 0111	'I' → 1100	'P' → 01100
' ' → 100	'N' → 0101	
'S' → 0100	'V' → 1101	
'C' → 11101	'D' → 111000	
'R' → 10110	'L' → 1010	
'A' → 1111	',' → 111001	
'T' → 10111	'G' → 011010	
'E' → 00	'M' → 011011	

- Texto
 - O SOCRATES E INVENDAVEL, INEGOCIAVEL E IMPRESTAVEL

Exemplo Huffman

Codificando a entrada

'O' → 0111	'I' → 1100	'P' → 01100
' ' → 100	'N' → 0101	
'S' → 0100	'V' → 1101	
'C' → 11101	'D' → 111000	
'R' → 10110	'L' → 1010	
'A' → 1111	',' → 111001	
'T' → 10111	'G' → 011010	
'E' → 00	'M' → 011011	

- Texto
 - O SOCRATES E INVENDAVEL, INEGOCIABEL E IMPRESTAVEL
- Saída
 - 0111

Exemplo Huffman

Codificando a entrada

'O' → 0111	'I' → 1100	'P' → 01100
' ' → 100	'N' → 0101	
'S' → 0100	'V' → 1101	
'C' → 11101	'D' → 111000	
'R' → 10110	'L' → 1010	
'A' → 1111	',' → 111001	
'T' → 10111	'G' → 011010	
'E' → 00	'M' → 011011	

- Texto
 - O SOCRATES E INVENDAVEL, INEGOCIABEL E IMPRESTAVEL
- Saída
 - 0111|100

Exemplo Huffman

Codificando a entrada

'O' → 0111	'I' → 1100	'P' → 01100
' ' → 100	'N' → 0101	
'S' → 0100	'V' → 1101	
'C' → 11101	'D' → 111000	
'R' → 10110	'L' → 1010	
'A' → 1111	',' → 111001	
'T' → 10111	'G' → 011010	
'E' → 00	'M' → 011011	

- Texto
 - O SOCRATES E INVENDAVEL, INEGOCIABEL E IMPRESTAVEL
- Saída
 - 0111|100|0100

Exemplo Huffman

Codificando a entrada

'O' → 0111	'I' → 1100	'P' → 01100
' ' → 100	'N' → 0101	
'S' → 0100	'V' → 1101	
'C' → 11101	'D' → 111000	
'R' → 10110	'L' → 1010	
'A' → 1111	',' → 111001	
'T' → 10111	'G' → 011010	
'E' → 00	'M' → 011011	

- Texto
 - O SOCRATES E INVENDAVEL, INEGOCIABEL E IMPRESTAVEL
- Saída
 - 0111|100|0100|0111

Exemplo Huffman

Codificando a entrada

'O' → 0111	'I' → 1100	'P' → 01100
' ' → 100	'N' → 0101	
'S' → 0100	'V' → 1101	
'C' → 11101	'D' → 111000	
'R' → 10110	'L' → 1010	
'A' → 1111	',' → 111001	
'T' → 10111	'G' → 011010	
'E' → 00	'M' → 011011	

- Texto
 - O SOC RATES E INVENDAVEL, INEGOCIABEL E IMPRESTAVEL
- Saída
 - 0111|100|0100|0111|11101

Exemplo Huffman

Codificando a entrada

'O' → 0111	'I' → 1100	'P' → 01100
' ' → 100	'N' → 0101	
'S' → 0100	'V' → 1101	
'C' → 11101	'D' → 111000	
'R' → 10110	'L' → 1010	
'A' → 1111	',' → 111001	
'T' → 10111	'G' → 011010	
'E' → 00	'M' → 011011	

- Texto
 - O SOCRATES E INVENDAVEL, INEGOCIAVEL E IMPRESTAVEL
- Saída
 - 0111|100|0100|0111|11101|10110



Exemplo Huffman

Codificando a entrada

'O' → 0111	'I' → 1100	'P' → 01100
' ' → 100	'N' → 0101	
'S' → 0100	'V' → 1101	
'C' → 11101	'D' → 111000	
'R' → 10110	'L' → 1010	
'A' → 1111	',' → 111001	
'T' → 10111	'G' → 011010	
'E' → 00	'M' → 011011	

- Texto
 - O SOCRATES E INVENDAVEL, INEGOCIABEL E IMPRESTAVEL
- Saída
 - 0111|100|0100|0111|11101|10110|1111|10111|00|0100|100|00|100|1100|0101|1101|00|0101|111000|1111|1101|00|1010|111001|100|1100|0101|00|011010|0111|11101|1100|1111|1101|00|1010|100|00|100|1100|011011|01100|10110|00|0100|10111|1111|1101|00|1010

Exemplo Huffman

Codificando a entrada

'O' → 0111	'I' → 1100	'P' → 01100
' ' → 100	'N' → 0101	
'S' → 0100	'V' → 1101	
'C' → 11101	'D' → 111000	
'R' → 10110	'L' → 1010	
'A' → 1111	',' → 111001	
'T' → 10111	'G' → 011010	
'E' → 00	'M' → 011011	

- Texto

- O SOCRATES E INVENDAVEL, INEGOCIAVEL E IMPRESTAVEL

- Saída

- 011110001000111111011011011111011100010010000100110001011101000101
1110001111110100101011100110011000101000110100111111011100111111010
0101010000100110001101101100101100001001011111111101001010

Exemplo Huffman

Codificando a entrada

'O' → 0111	'I' → 1100	'P' → 01100
' ' → 100	'N' → 0101	
'S' → 0100	'V' → 1101	
'C' → 11101	'D' → 111000	
'R' → 10110	'L' → 1010	
'A' → 1111	',' → 111001	
'T' → 10111	'G' → 011010	
'E' → 00	'M' → 011011	

A saída em bits será transmitida,
juntamente com a tabela de
codificação (árvore)

- Texto

- O SOCRATES E INVENDAVEL, INEGOCIAVEL E IMPRESTAVEL

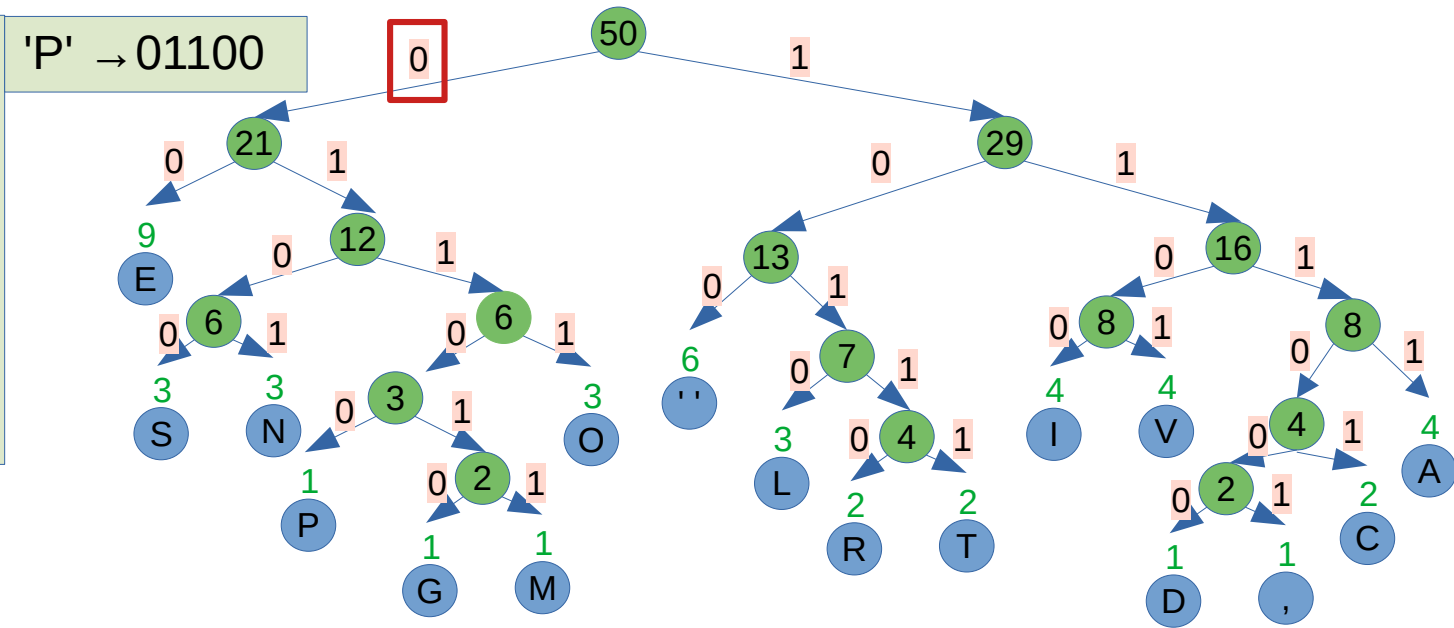
- Saída

- 011110001000111111011011011111011100010010000100110001011101000101
1110001111110100101011100110011000101000110100111111011100111111010
0101010000100110001101101100101100001001011111111101001010

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	',' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011



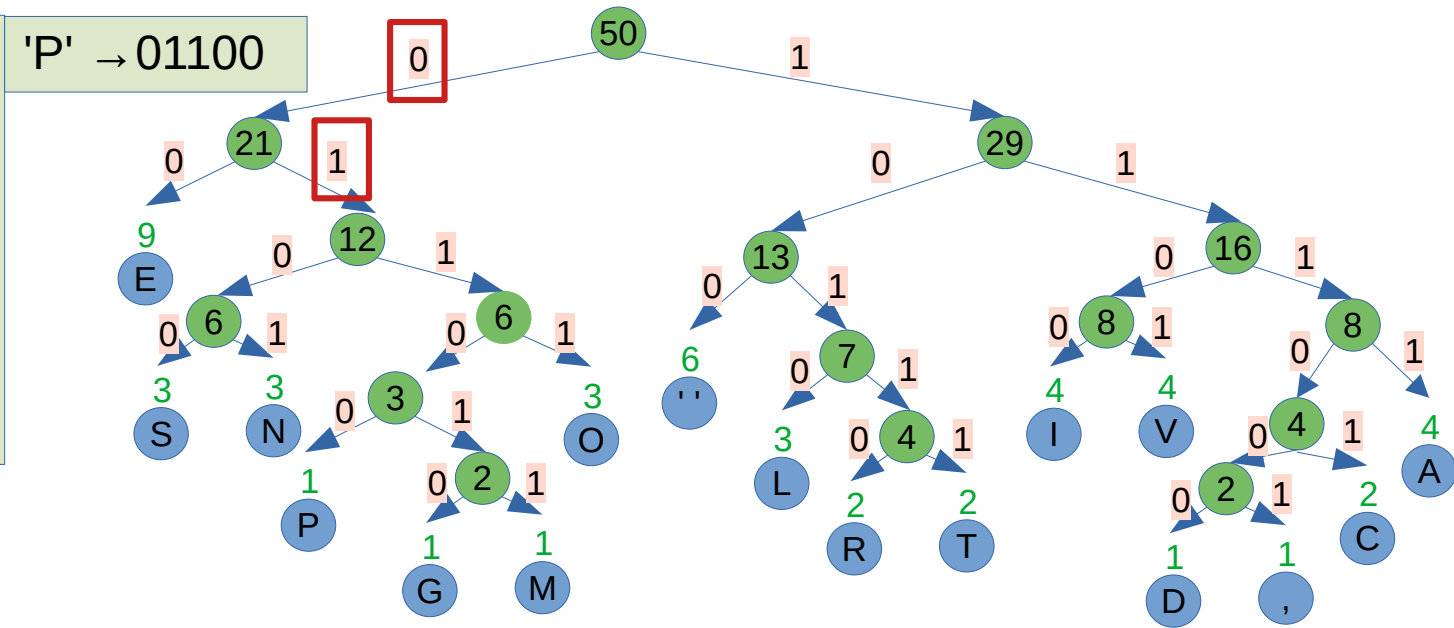
- Entrada

011110001000111111011011011111011100010010000100111000101110100010111100011111010010101000010011000110011000101000110100111111011100111111010010101000010011000110110010110000100101111111101001010

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	' ,' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011

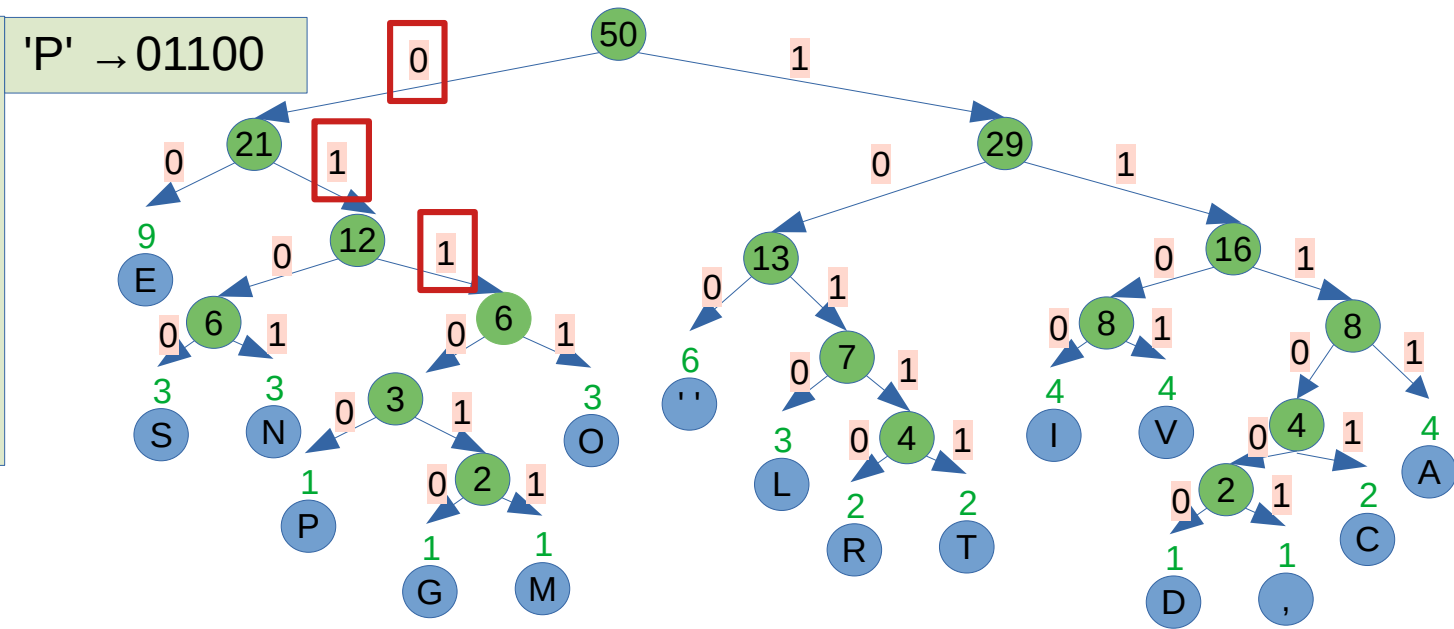


Entrada

011111000100011111101101101111101110001001000010011000101110100010111100011
 111101001010111001100110001010001101001111101110011111101001010100001001
 1000110110110010110000100101111111101001010

Exemplo Huffman

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	',' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011



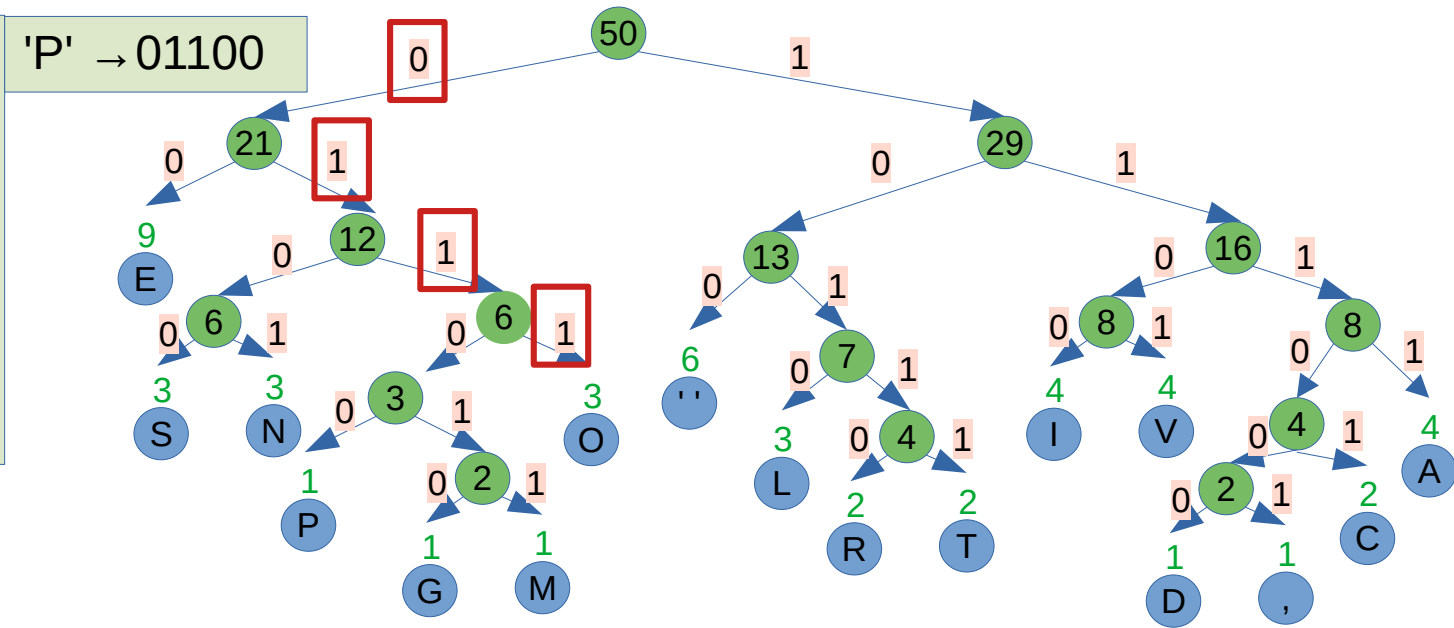
- Entrada

– 0111100010001111101101101111101110001001000010011000101110100010111100011111010010101110011001100010100011010011111011100111111010010101000010011000110110110010110000100101111111101001010

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	',' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011

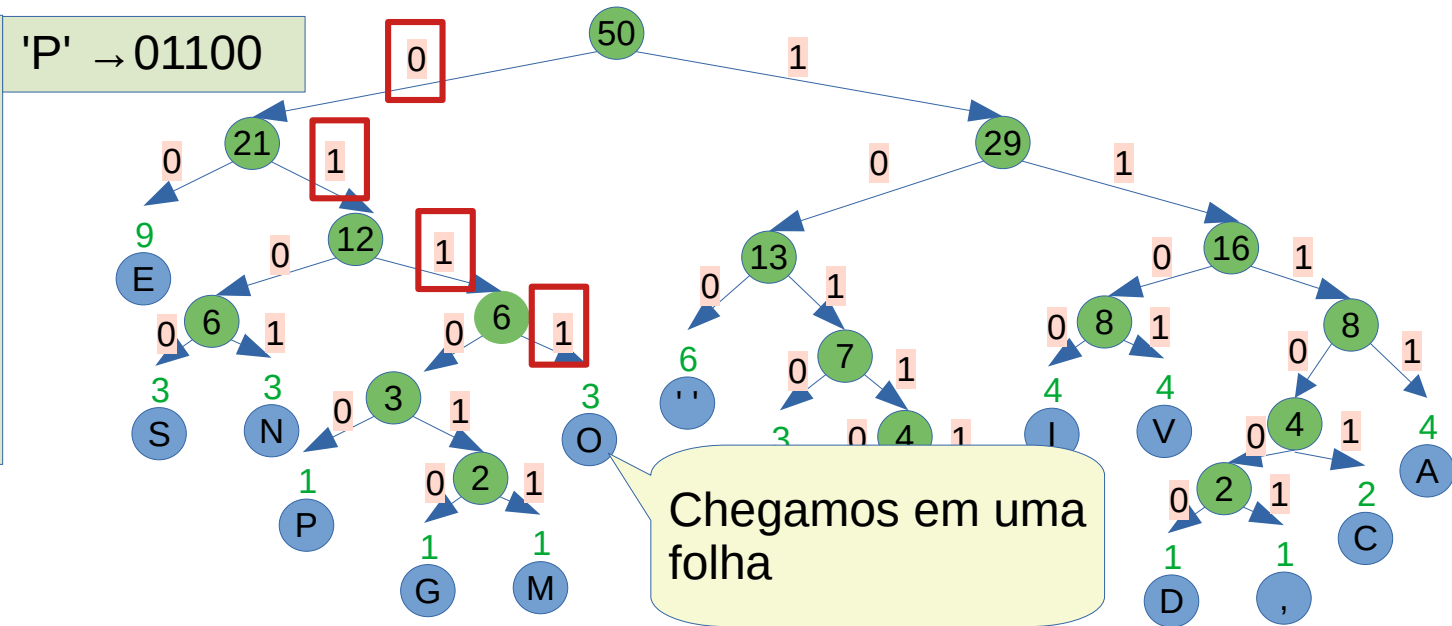


- Entrada

– 0111100010001111101101101111101110001001000010011000101110100010111100011
 111101001010111001100110001010001101001111101110011111101001010100001001
 1000110110110010110000100101111111101001010

Exemplo Huffman

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	',' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011

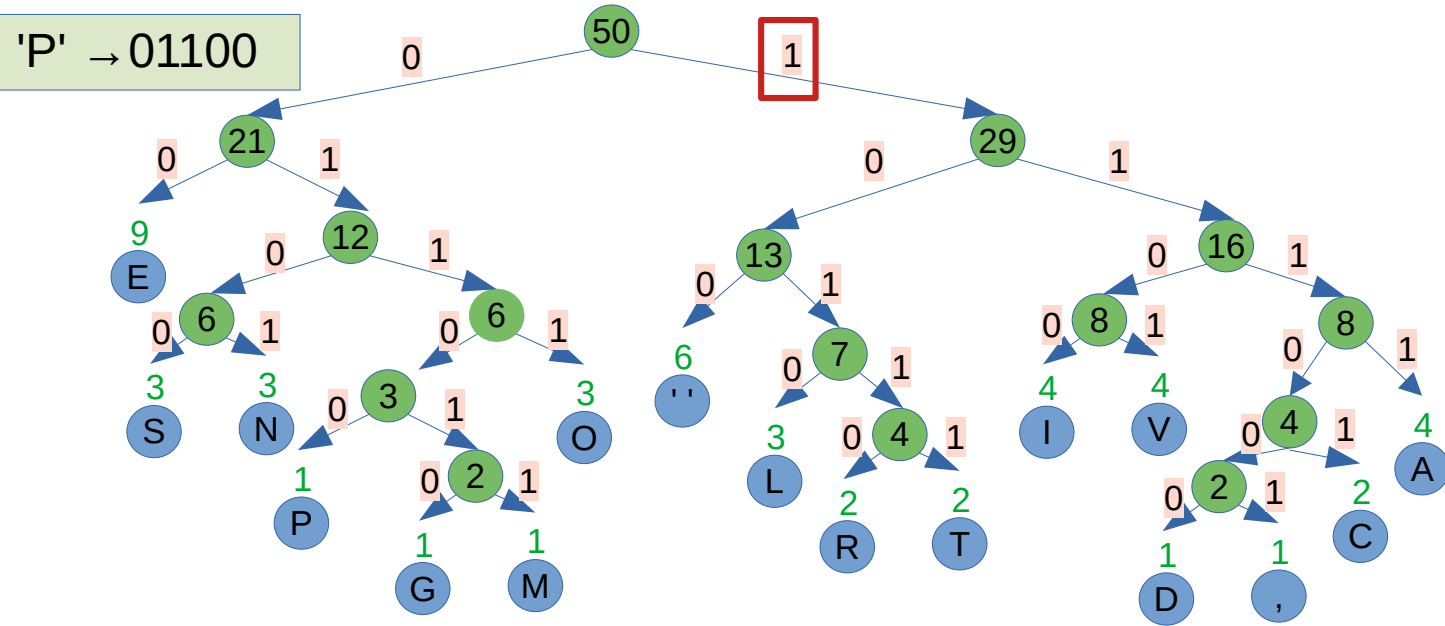


- Entrada
 - 0111100010001111110110110111110111000100100001001100010111010001011111000111111010010101110011001100010100011010011111101110011111101001010100001001100011011011001011100001001011111111101001010
- Saida
 -

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	' ,' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011



- Entrada

0111100010001111110110110111110111000100100001001100010111010001011111000111111
 01001010111001100110001010001101001111110111001111110100101010000100110001101
 10110010110000100101111111101001010

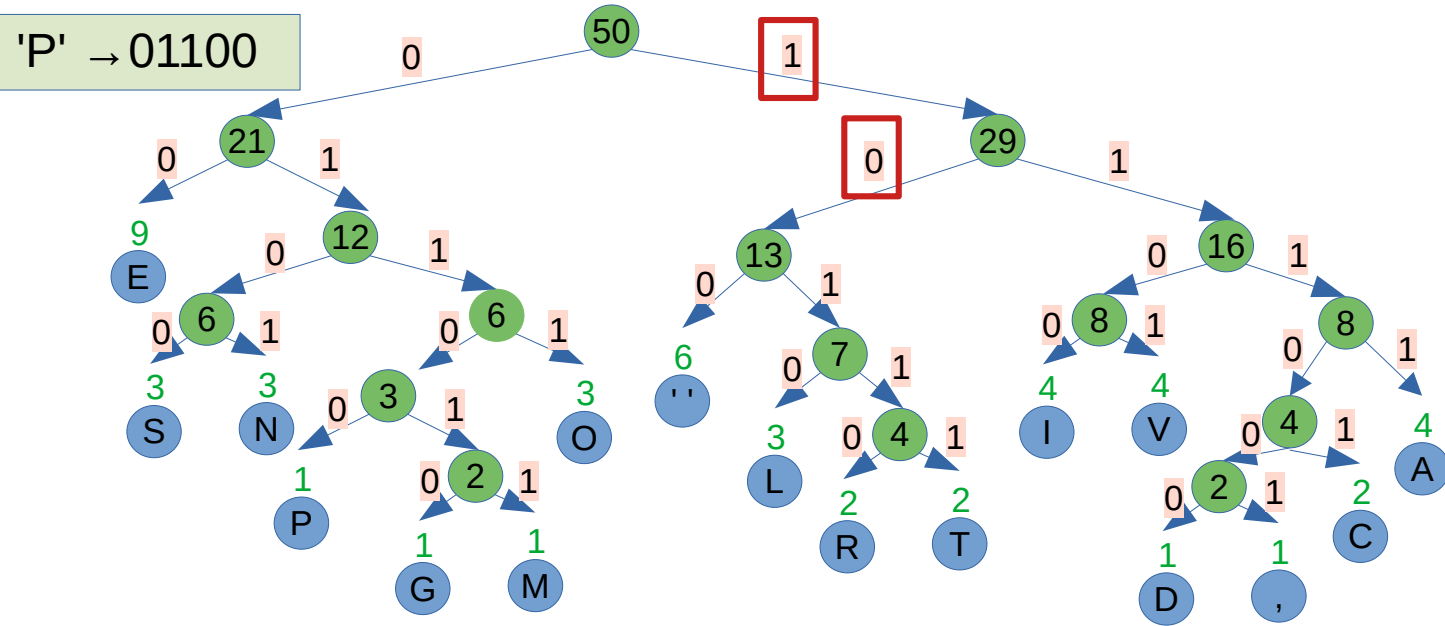
- Saída

O

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	' ,' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011



- Entrada

011110001000111111011011011111011100010010000100110001011101000101111000111111
 01001010111001100110001010001101001111110111001111110100101010000100110001101
 10110010110000100101111111101001010

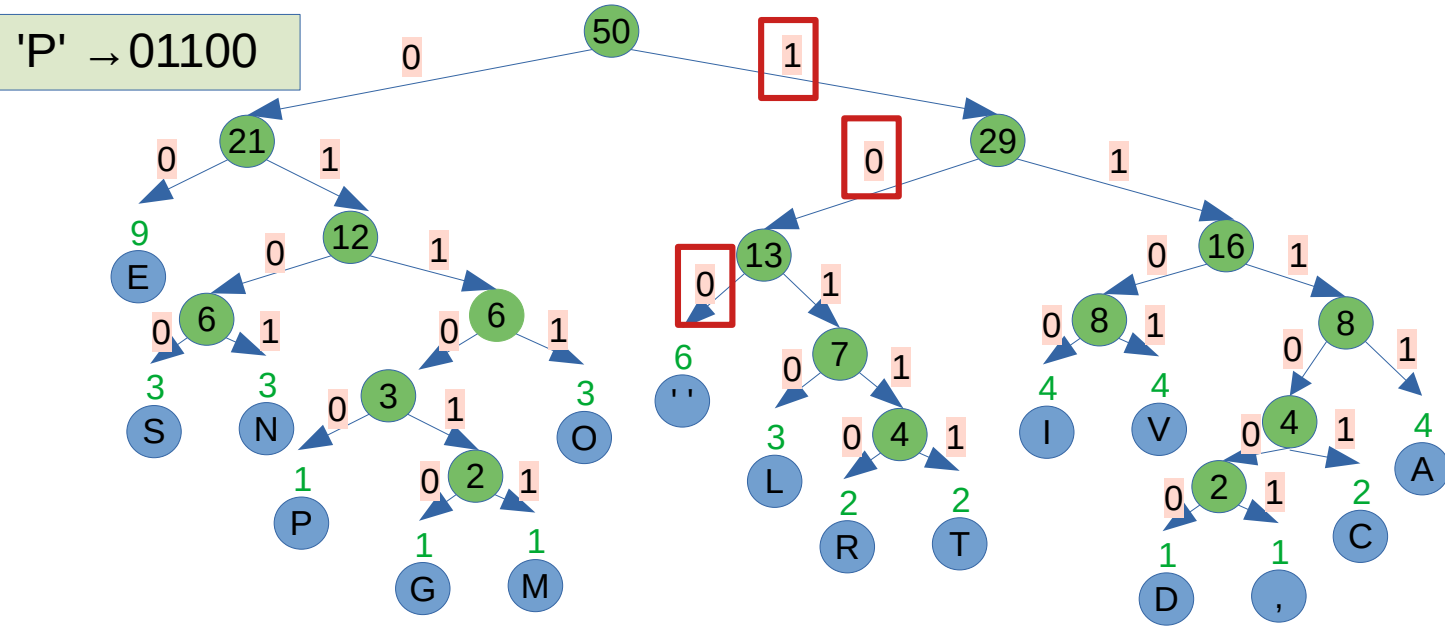
- Saída

O

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	' ,' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011



- Entrada

011110001000111111011011011111011100010010000100110001011101000101111000111111
 01001010111001100110001010001101001111110111001111110100101010000100110001101
 101100101100001001011111111101001010

- Saida

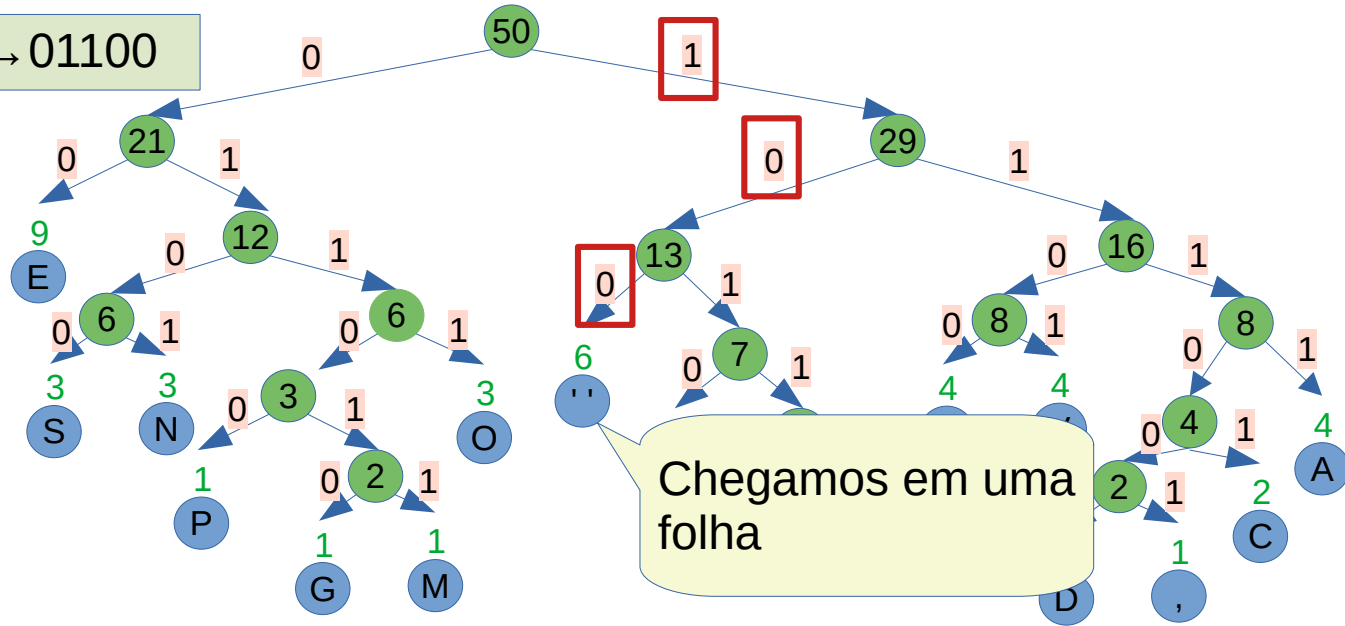
O

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	' ' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011

'P' → 01100



- Entrada

0111100010001111110110110111110111000100100001001100010111010001011111000111111
01001010111001100110001010001101001111110111001111110100101010000100110001101
10110010110000100101111111101001010

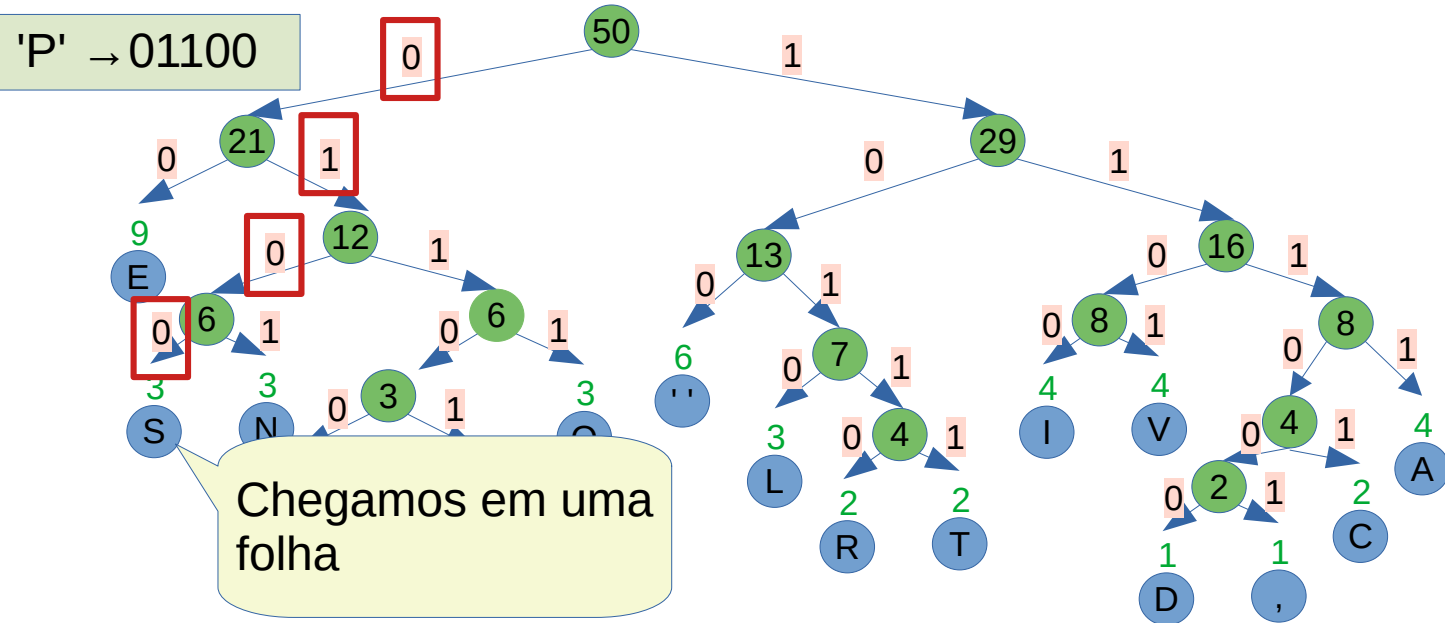
- Saida

O

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	'.' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011



- Entrada

011110001000111111011011011111011100010010000100110001011101000101111000111111
 01001010111001100110001010001101001111110111001111110100101010000100110001101
 10110010110000100101111111101001010

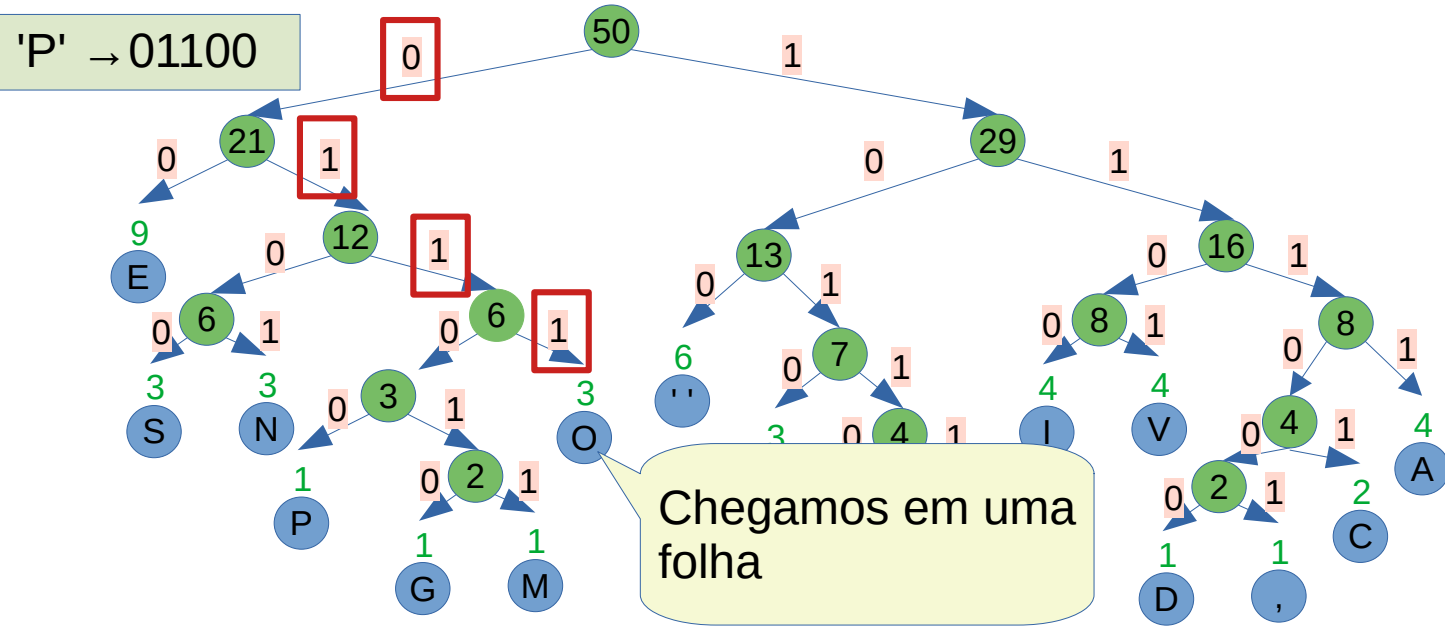
- Saida

OS

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	'.' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011



- Entrada

0111100010001111111011011011111011100010010000100110001011101000101111000111111
 01001010111001100110001010001101001111110111001111110100101010000100110001101
 10110010110000100101111111101001010

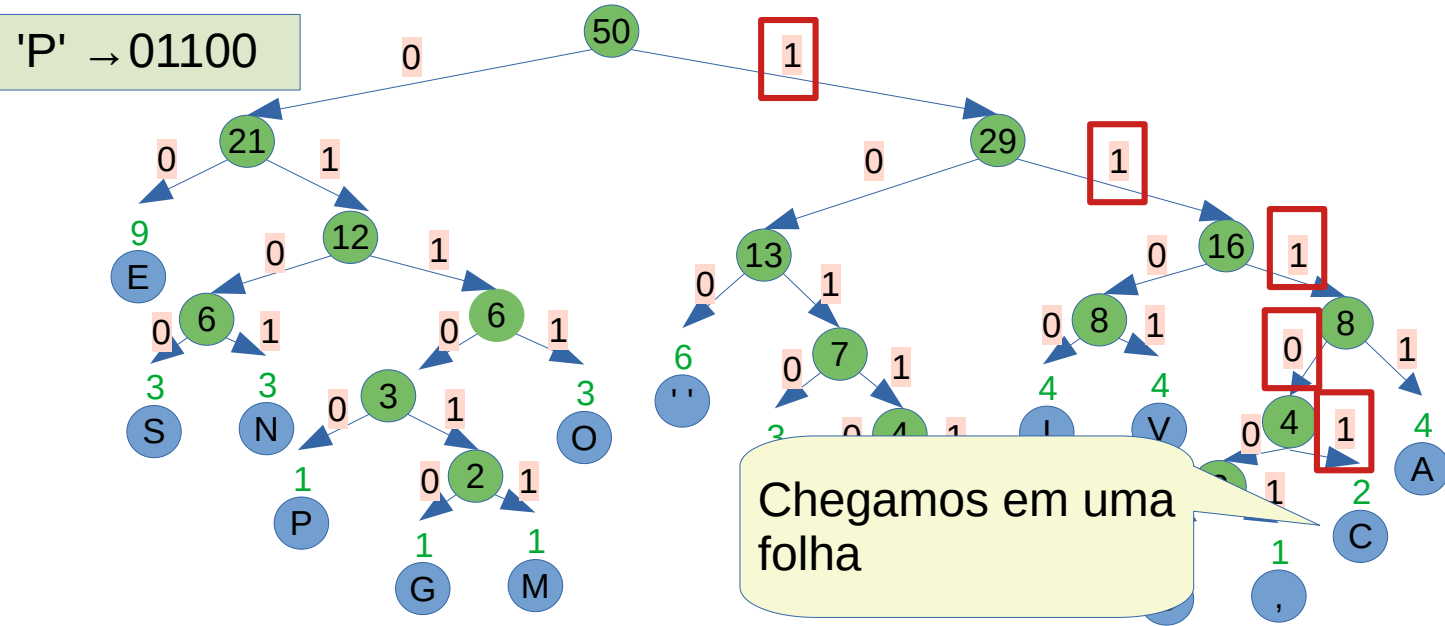
- Saida

O SO

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	',' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011



- Entrada

011110001000111111011110111100010010000100110001011101000101111000111111
 010010101110011001100010100011010011111011100111110100101010000100110001101
 10110010110000100101111111101001010

- Saida

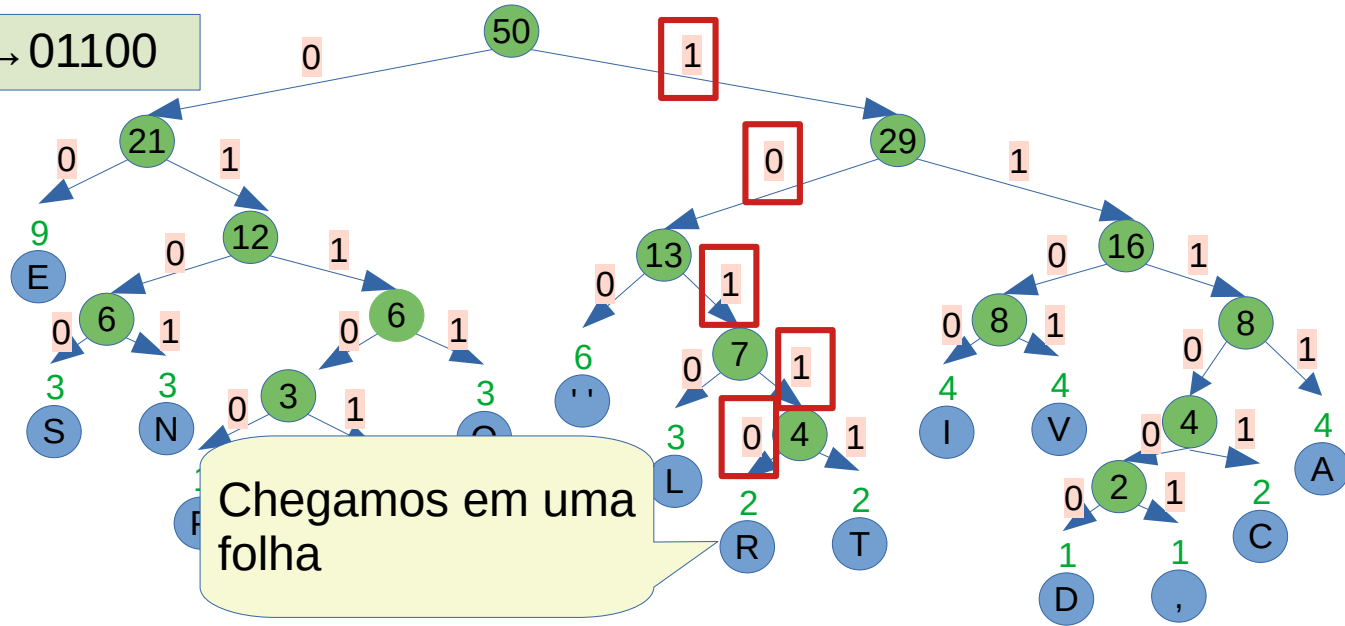
O SOC

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	',' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011

'P' → 01100



- Entrada

011110001000111111011011011110001001000010011000101110100010111100011111
 010010101110011001100010100011010011111011100111110100101010000100110001101
 10110010110000100101111111101001010

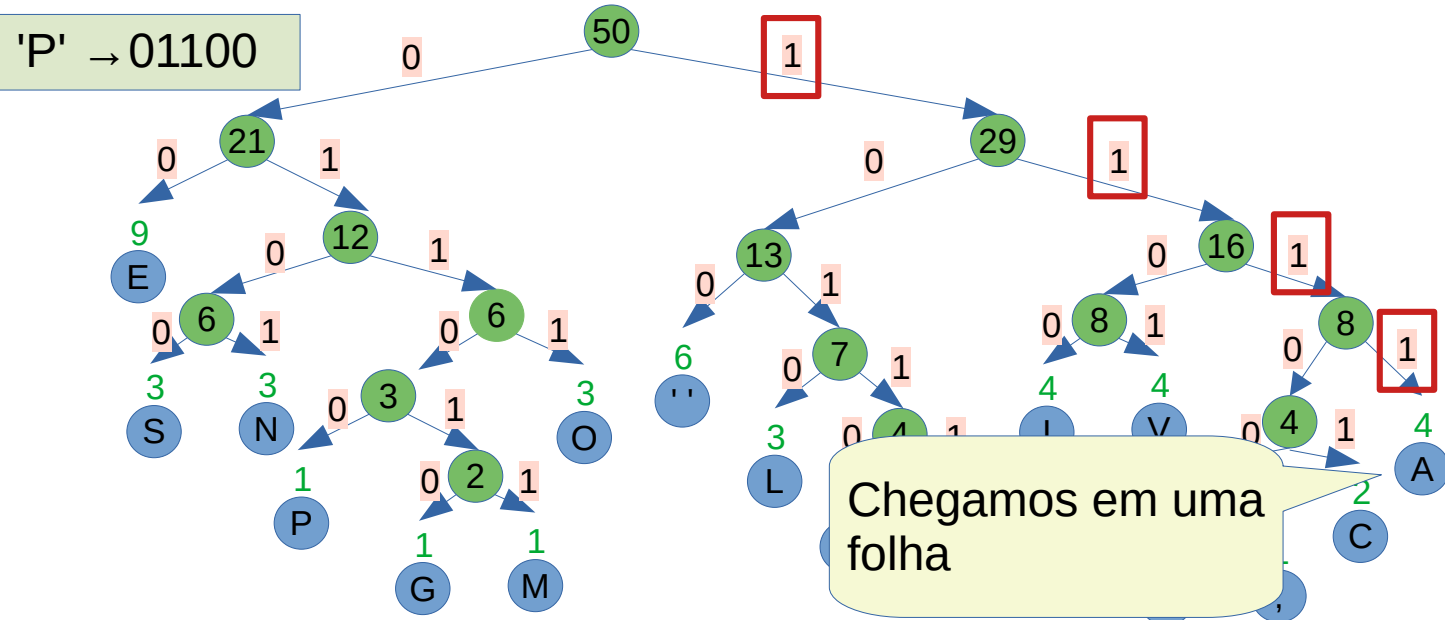
- Saida

O SOCR

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	',' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011



- Entrada

0111100010001111110110110111101111000100100001001100010111010001011111000111111
 01001010111001100110001010001101001111110111001111110100101010000100110001101
 101100101100001001011111111101001010

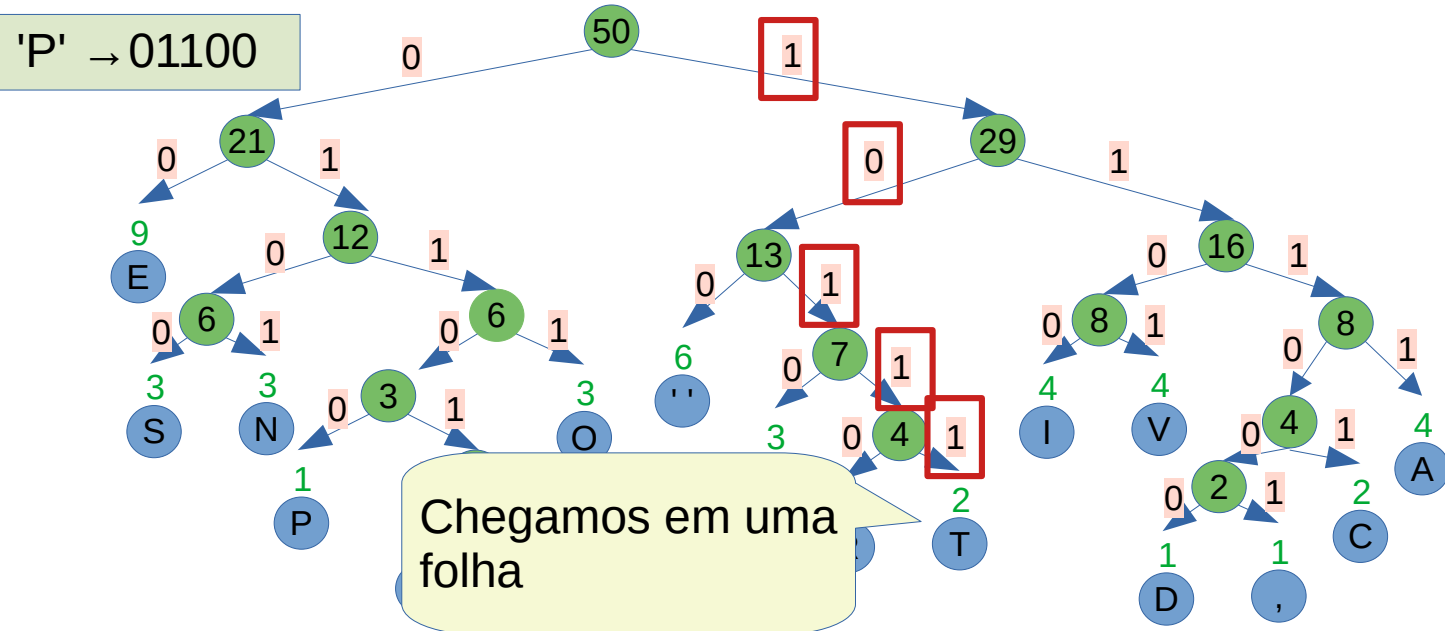
- Saida

O SOCR

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	' ,' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011



- Entrada

01111000100011111101101101111101111100010010000100110001011101000101111000111111
 01001010111001100110001010001101001111110111001111110100101010000100110001101
 10110010110000100101111111101001010

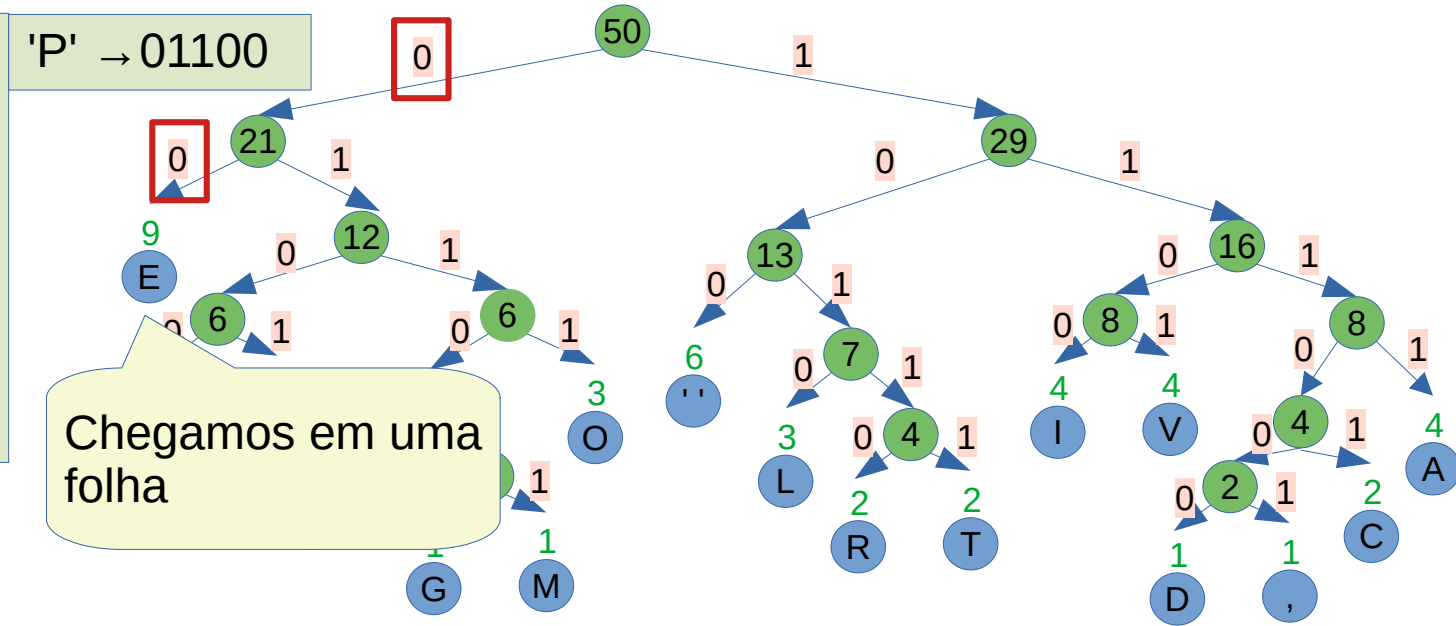
- Saida

O SOCRAT

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	',' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011



- Entrada

011110001000111111011011011110111001001000100110001011101000101111000111111010010101110011001100010100011010011111101110011111101001010100001001100
 11010010101110011001100010100011010011111101110011111101001010100001001100
 0110110110010110000100101111111101001010

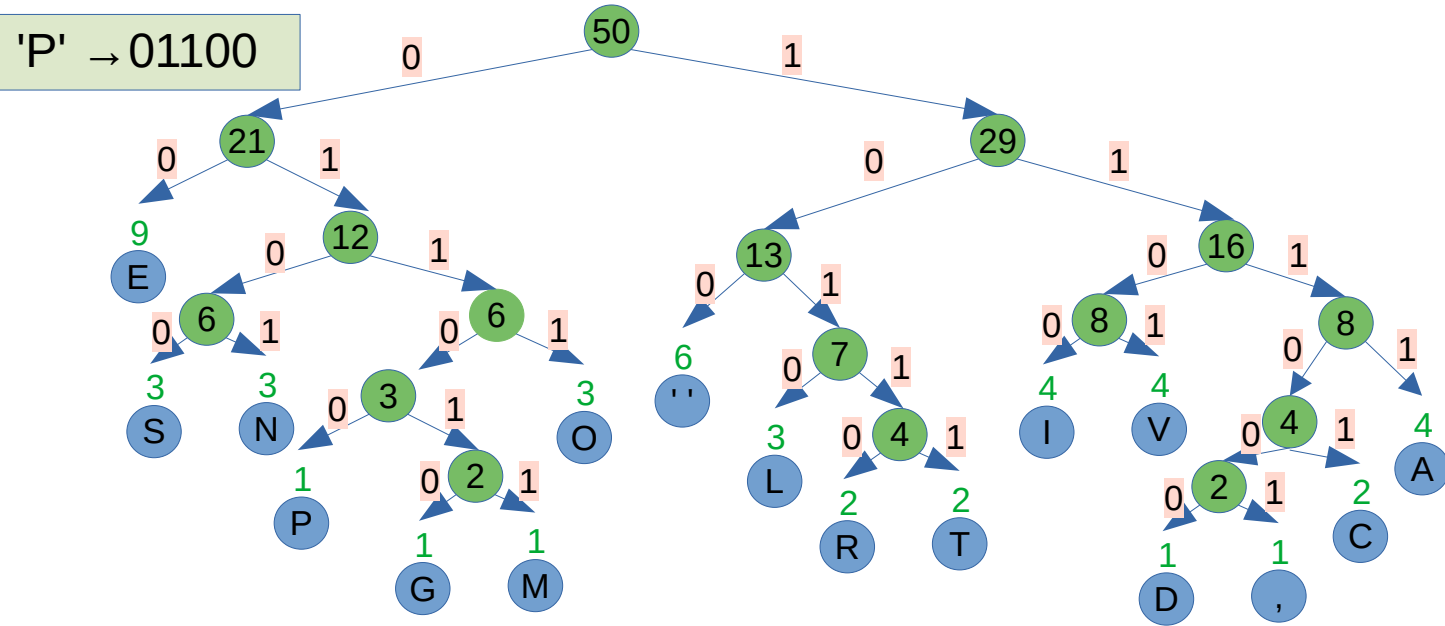
- Saida

O SOCRATE

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	',' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011



- Entrada

0111100010001111110110110111110111000100100001001100010111010001011110001111
 11010010101110011001100010100011010011111101110011111101001010100001001100
 0110110110010110000100101111111101001010

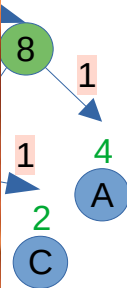
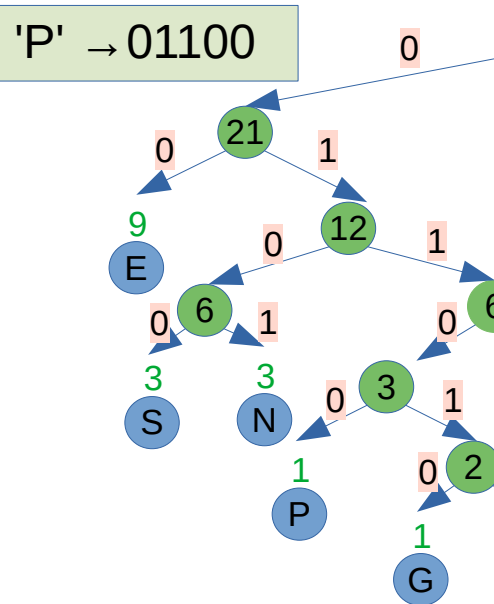
- Saída

O SOCRATES E INVENDAVEL, INEGOCIAVEL E IMPRESTAVEL

Exemplo Huffman

Decodificando

'O' → 0111	'I' → 1100
' ' → 100	'N' → 0101
'S' → 0100	'V' → 1101
'C' → 11101	'D' → 111000
'R' → 10110	'L' → 1010
'A' → 1111	',' → 111001
'T' → 10111	'G' → 011010
'E' → 00	'M' → 011011



- Entrada

- 01111000100011111101101101111011100010011
 - 11010010101110011001100010100011010011111
 - 0110110110010110000100101111111101001010

- Saída

- O SOCRATES E INVENDAVEL, INEGOCIABEL E IMPRESTAVEL