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IN-CLASS EXERCISE

## Key ideas

- Huffman tree is a binary tree (for our purposes).
- All characters are stored at the leaves of a tree.
- A left-edge is numbered 0 and a right-edge is numbered 1.
- The code for any character/leaf node is obtained by following the root-to-leaf path and concatenating the 0's and 1's.
- The specific structure of the tree determines the coding of any leaf node using the 0/1 edge convention described.

## Exercise

huffman fluffs many mums

### 1. Write the frequency table

character	frequency

### 2. Draw the Huffman tree

### 3. Encode the first 5 characters

h	u	f	f	m

### 4. Decode what you just wrote

### 5. Is there any other possible decoding?