

# ECE M16 Homework 1

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## Problem 1

Since there are 26 letters in the English Alphabet, we would need  $\lceil \log_2(26) \rceil = 5$  bits to represent this signal. Therefore we could create a way of encoding the English Alphabet as 5 bits with each letter being encoded as 1+ the encoding of the previous letter, for instance A=00000 and B=00001, etc.

## Problem 2