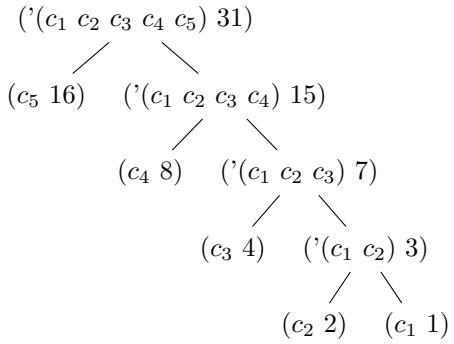
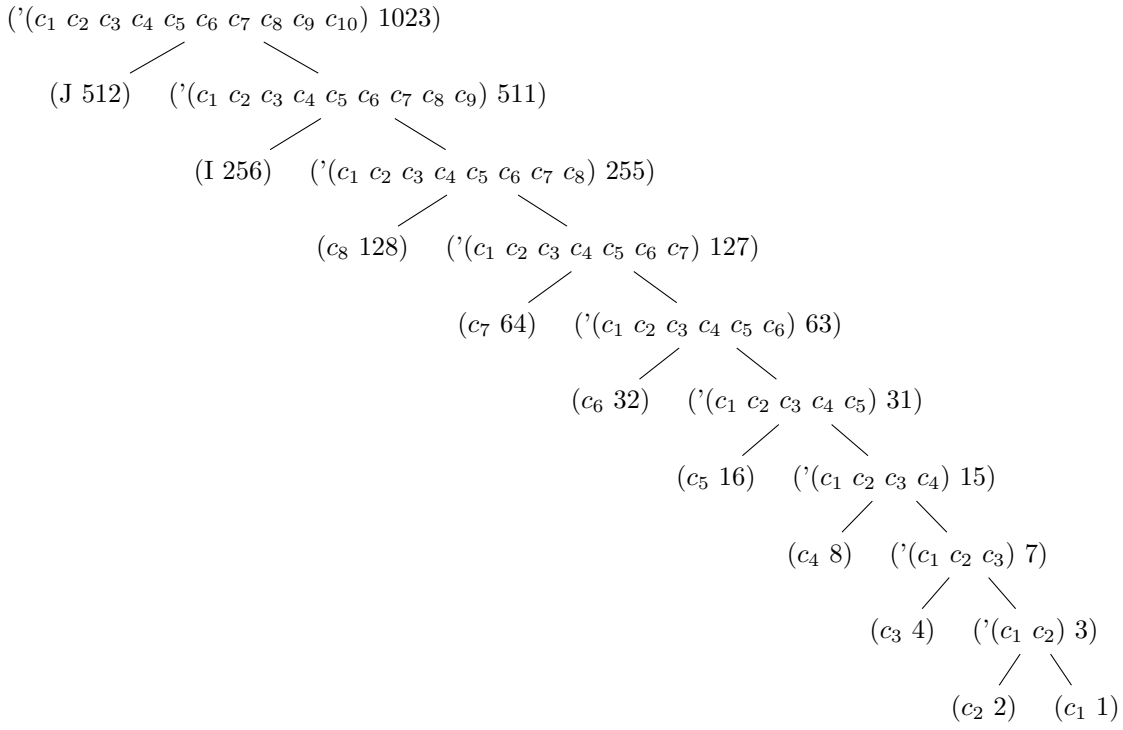
Given an alphabet of n symbols, where the relative frequencies of the symbols are $1, 2, 4, ..., 2^{n-1}$, trees of the following form are produced:

For $n = 5$:



For $n = 10$:



In a tree of this form, 1 bit is required to encode the most frequent symbol and $n - 1$ bits are required to encode the least frequent symbol.