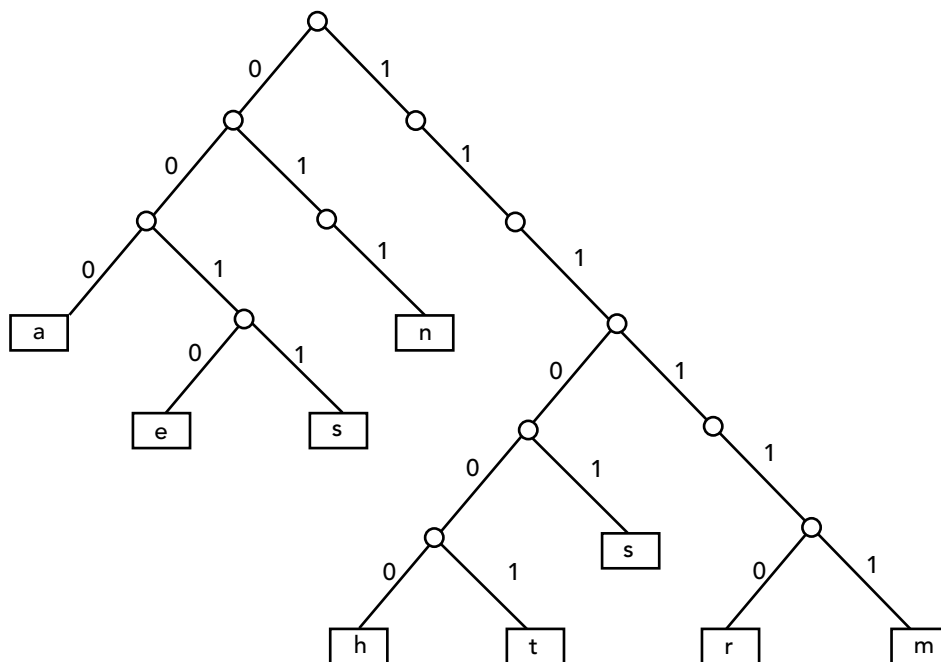


Challenge

- Given the following binary tree, encode and decode the prefix messages respectively:



0011 1111 1100 0111 1101 1100 1:

Math:

- Given this scenario:

While watching the news the meteorologist presents a three day forecast in which there is a 50-50 chance of rain each day.

Assuming that the meteorologist is correct, what is the probability that it rains on at most one of the three days?

- Assume that an equally balanced coin is flipped 3 times.
 - What is the probability that the first flip is heads?
 - What is the probability that there are two consecutive heads?
 - What is the probability that the first flip is heads and there at least two consecutive heads?

4. Use the Caesar cipher to encrypt the message (use an offset of 3).

"Good morning"

5. Use the Caesar cipher to decrypt this message (use an offset of 3).

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