Friday July 19th 2024.

CS240 Tutorial 11

1. **KMP**
   For the pattern $P = \text{ababd}$ and the text $T = \text{ababcabcababababd}$
   - Draw the KMP automaton associated with P and write out the failure array F
   - Walk through the steps of the KMP algorithm and indicate where comparisons take place
2. **Boyer-Moore**
   Using the same pattern and text as in the previous question, write out the last occurrence array L associated with P and step through the Boyer-Moore algorithm indicating where comparisons take place
3. **Suffix Trees**
   Given a suffix tree representing some text T, find the most commonly occuring substring of length l in T. For example, if T is 10010010 and $l = 5$ the algorithm should return 10010. If the suffix tree is given in advance the algorithm should take $O(n)$ time worst case where $|T| = n$.