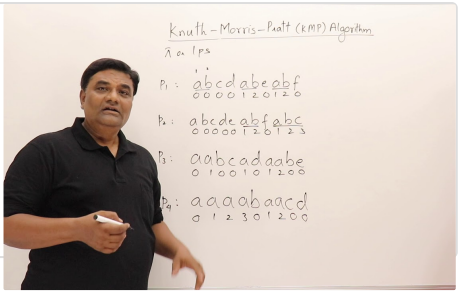
Knuth–Morris–Pratt algorithm

9.1 Knuth-Morris-Pratt KMP String Matching Algorithm

In P3, b is also matching , lps should be 0 1 0 0 1 0 1 2 3 0

Naive Algorithm

https://www.youtube.com/watch?v=V5-7GzOfADQ&ab_channel=AbdulBari



Visualizing String Matching Algorithms

http://whocouldthat.be/visualizing-string-matching/

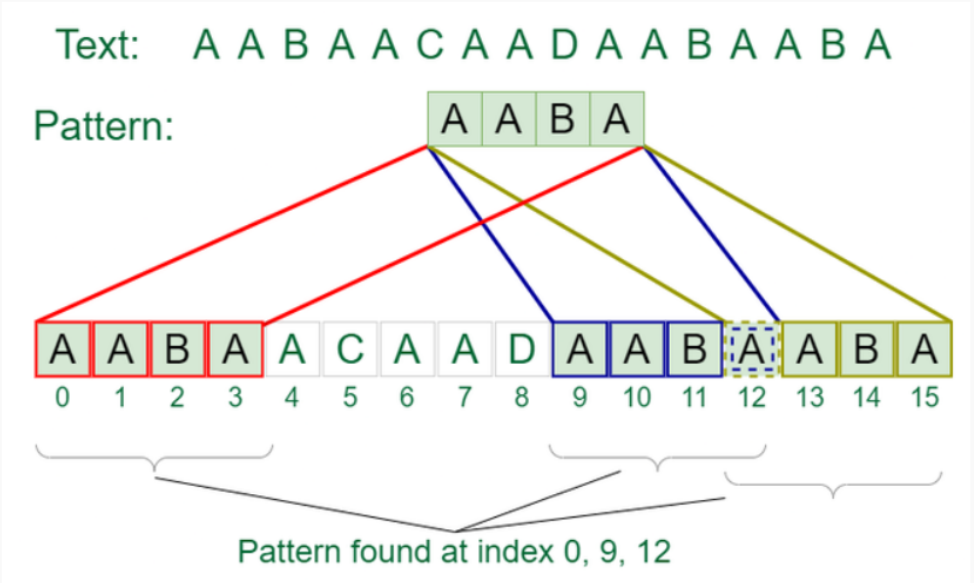
Input: *txt[] = "THIS IS A TEST TEXT", pat[] = "TEST"*

Output: *Pattern found at index 10*

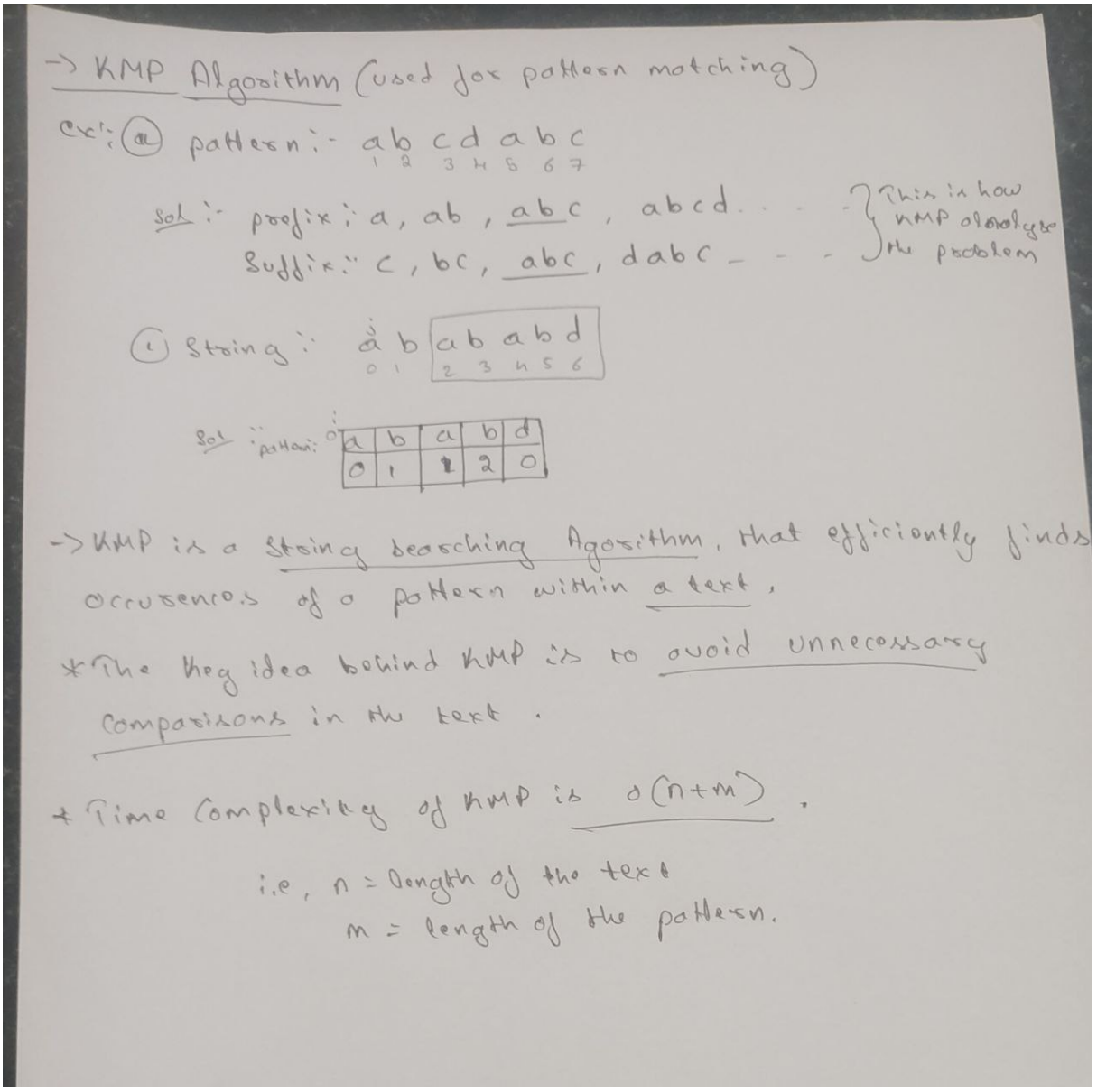
Input: *txt[] = "AABAACAADAABAABA"*

pat[] = "AABA"

Output: *Pattern found at index 0, Pattern found at index 9, Pattern found at index 12*



Arrivals of pattern in the text



http://whocouldthat.be/visualizing-string-matching/