| Problem   | Hash  | KMP                          | Z                           | SA   | Aho-Corasick          | SAM                   |
|-----------|---|------------------------------|-----------------------------|--|-----------------------|-----------------------|
| TIOJ 1306 | $O(Q T  + \sum  P_i )$ (TLE) or $O(\sum  P_i  + \sqrt{\sum  P_i }  T  + Q)$ | $O(Q T  + \sum  P_i )$ (TLE) | $O(Q T  + \sum  P_i )$ (AC) | $O(\operatorname{SA}(T) + \operatorname{RMQ}_{\operatorname{build}}(T) + \sum  P_i  \log  T  \operatorname{RMQ}_{\operatorname{query}}(T)) \text{ or } O(\operatorname{SA}(T) + \operatorname{RMQ}_{\operatorname{build}}(T) + \sum  P_i  \operatorname{RMQ}_{\operatorname{query}}(T))$ | $O( T  + \sum  P_i )$ | $O( T  + \sum  P_i )$ |