

# Programming Assignment 9

Implement Karp Rabin, using prime 8011 and the smallest generator for  $\alpha$ .

Then use a long text, e.g. a text file downloaded from Project Gutenberg. Search for a pattern of length 5-10. Determine how often the Rabin signature is the same, but the corresponding text is not. This is called a hash collision. We can expect about a  $1/8011$  proportion of text locations to have the pattern signature without being the pattern.