

HOMEWORK SET #4

1. From the book 6.2, 6.3, 8.3, 9.1
2. Compare by simulation the coverage and mean length of the 95% asymptotic CI for p based on a) direct CLT with asymptotic variance estimated by the plug-in method b) the variance stabilizing transformation c) Bayes credible interval for prior $\text{Beta}(1/2, 1/2)$. To make the comparison use $n=10, 50$ and $p=0.01, 0.02, \dots, 0.99$. Summarize your results in a graph.