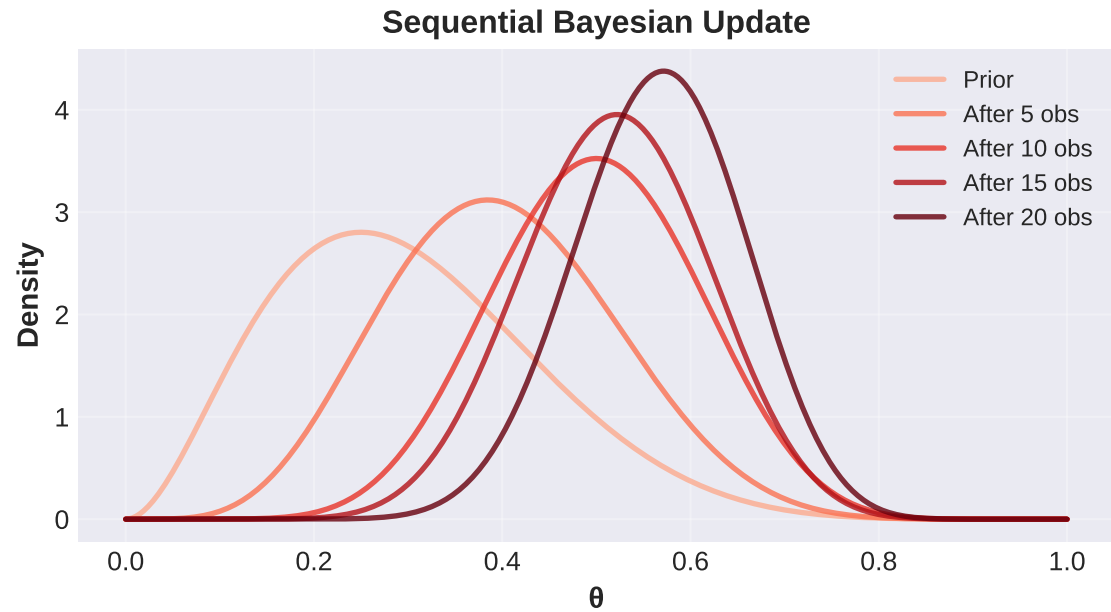
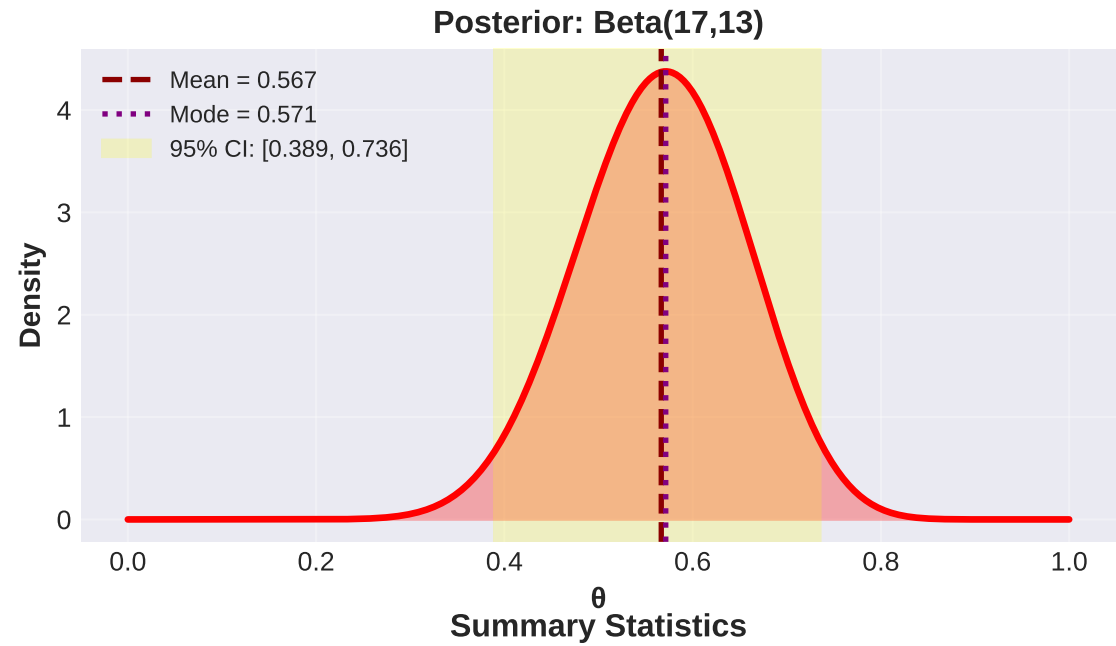
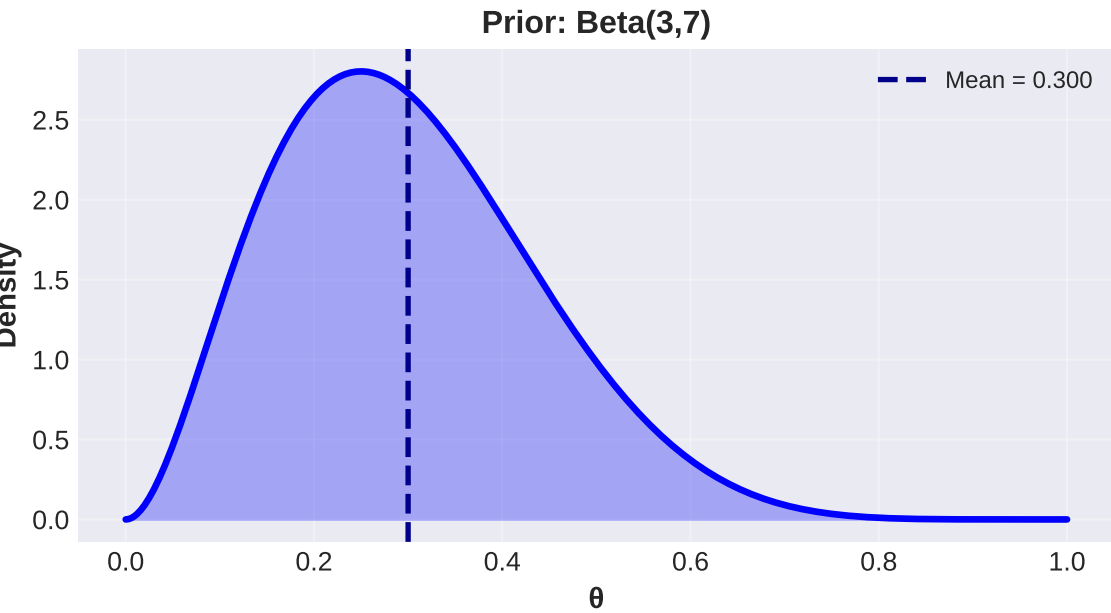
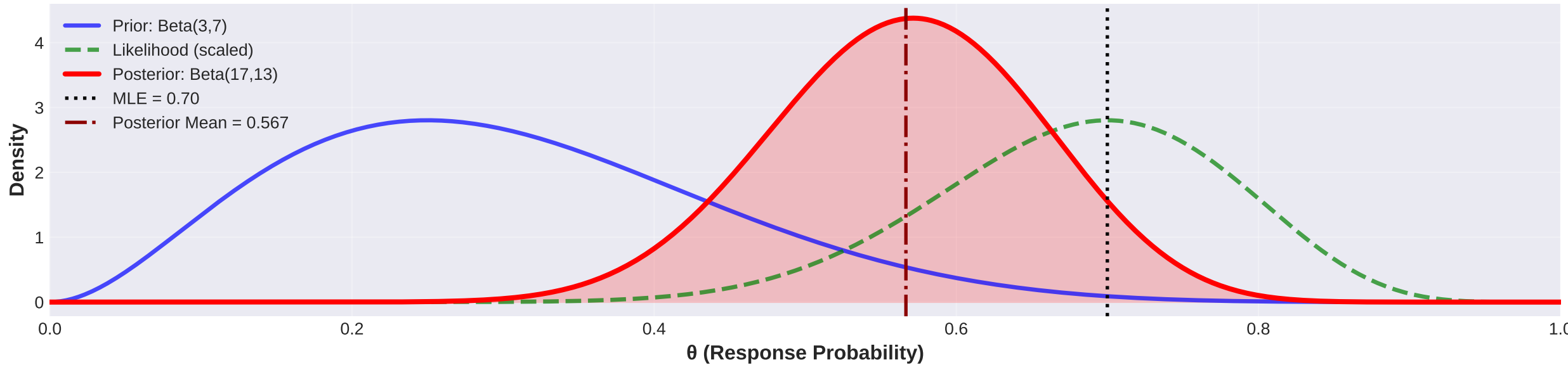


Question 1: Beta-Binomial Conjugacy - Prior, Likelihood, and Posterior



| Metric       | Prior     | Data  | Posterior   |
|--------------|-----------|-------|-------------|
| Distribution | Beta(3,7) | 14/20 | Beta(17,13) |
| Mean         | 0.300     | 0.700 | 0.567       |
| Std Dev      | 0.138     | —     | 0.089       |
| 95% CI Lower | 0.075     | —     | 0.389       |
| 95% CI Upper | 0.600     | —     | 0.736       |