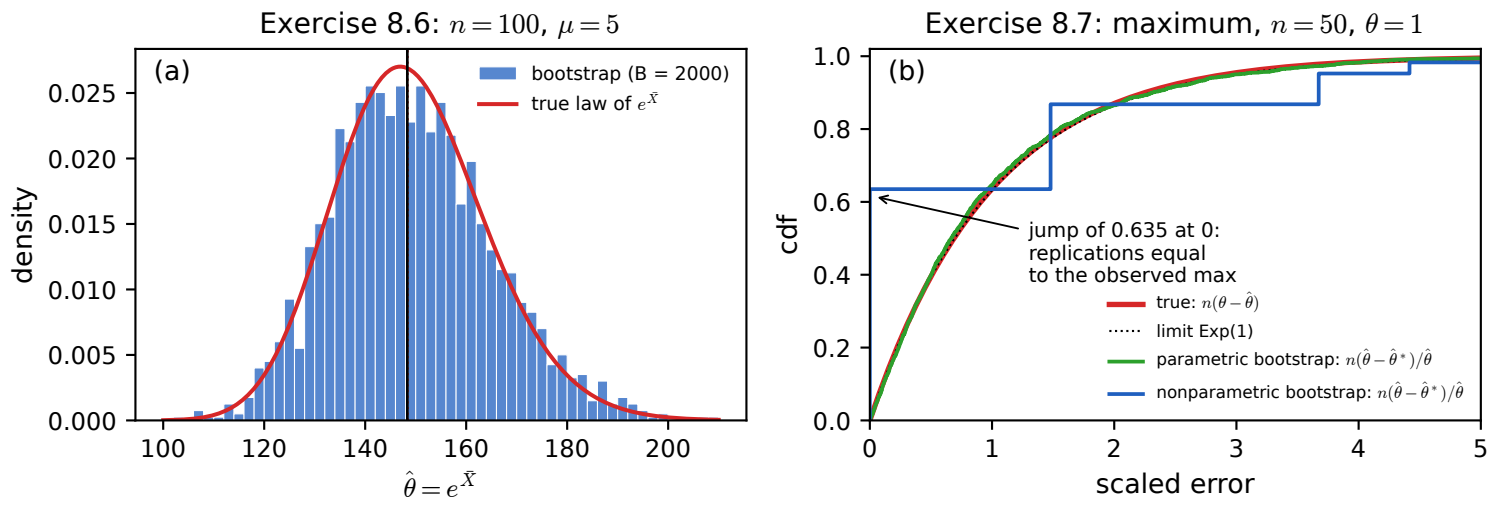

Exercise 8.6: $n = 100$, $\mu = 5$
(a)
bootstrap (B = 2000)
true law of $e^{\bar{X}}$
density
0.025
0.020
0.015
0.010
0.005
0.000
100
120
140
160
180
200
$\hat{\theta} = e^{\bar{X}}$
Exercise 8.7: maximum, $n = 50$, $\theta = 1$
(b)
cdf
1.0
0.8
0.6
0.4
0.2
0.0
jump of 0.635 at 0:
replications equal
to the observed max
true: $n(\theta - \hat{\theta})$
limit Exp(1)
parametric bootstrap: $n(\hat{\theta} - \hat{\theta}^*)/\hat{\theta}$
nonparametric bootstrap: $n(\hat{\theta} - \hat{\theta}^*)/\hat{\theta}$
0
1
2
3
4
5
scaled error