

BY HENGJIAN CUI

Write (copy) the required excises, then give solutions by *yourself*.

Copy excises each other is NOT permitted!

EX12.

1. P379: 8.14. P386: 8.17.

2. Use Splus or R software to generate 50 random numbers $\{x_i : 1 \leq i \leq 50\}$ from $t(5)$ and let $g(\theta) = \sum_{i=1}^{50} \frac{(x_i - \theta)}{1 + (x_i - \theta)^2/5}$. Draw the picture of $\{(\theta, g(\theta)) : \theta \in (-5, 5)\}$ and give the solution of $g(\theta) = 0$ numerically. Who is the MLE of θ ?

3*. P387: 8.19.