Stat 514 Fall 2010 Theory-oriented problems, set 2

1. Problem 2.20 in the text.

2. Show that Savage scores (discussed on page 50 of the text) sum to 0.

3. On page 120 of the text, verify the expressions for $E(SR_+)$ and $var(SR_+)$.

4. Explain the SAS code that I used to write the location-scale bootstrap program from the 10/27 lecture.

5. On page 255 of the text, solve the inequalities in

$$P\left(t_{.025} < \frac{\overline{X} - \mu}{S/\sqrt{n}} < t_{.975}\right) = .95$$

for μ to obtain the expression for the 95% confidence interval that appears below it.