

**STAT 5380 Assignment 3:**  
**Minimum Risk Equivariance (MRE) for location, scale and location/scale**

1. TPE Problem 3.1.4.
2. TPE Problem 3.1.10.
3. TPE Problem 3.1.11.
4. TPE Problem 3.3.2.
5. TPE Problem 3.3.3.
6. TPE Problem 3.3.7.

**Note:** The problem statement in part (b) should read as follows:

Let  $X \sim \chi^2(f)$ , a  $\chi^2$ -distribution with  $f$  degrees of freedom. Then, the minimizing value in (a) is  $c = \{\text{median of } \chi^2(w)\}$ , where  $w = f + 2$ . (Hint: Example 1.5.14.)

7. TPE Problem 3.3.13.
8. TPE Problem 3.3.15.
9. TPE Problem 3.3.22.