

Exercises 7

1. Recall the wordprocessing data example (see Exercises 6, Question 1).
 - (a) Carry out pairwise comparisons among the effects of the methods using Fisher's and Tukey's tests. Draw conclusions, commenting on the differences between the results of the Fisher and Tukey approaches at the default 5% significance level.
 - (b) Further construct a set of three mutually orthogonal contrasts among the methods, the first to compare Method A with the others, the second to compare Method B with Methods C and D, and the third to compare Method C with Method D. Obtain the corresponding decomposition of the sum of squares for methods and draw conclusions.
2. For the tyres example (Exercises 6, Question 2), construct a set of three mutually orthogonal contrasts, the first to compare front with rear tyres, the second to compare offside with nearside tyres, and a third to be orthogonal to the first two. Obtain the corresponding decomposition of the sum of squares for treatments and draw conclusions.