26s.1 Logging in the rain forest. In Exercise 26.1, you carried out basic ANOVA to compare the mean counts of individual trees in forest plots of types A, B, and C.

(a) Find the Tukey simultaneous 95% confidence intervals for all pairwise comparisons of population means.

(b) Explain in simple language what "95% confidence" means for these intervals.

(c) Which pairs of means differ significantly at the overall 5% significance level?

(d) Without using software, find the Bonferonni simultaneous 95% confidence intervals for all pairwise comparisons of population means. How do they compare to the confidence intervals using Tukey's approach?

Data are found in "ta24-02.csv"

26s.3 Dogs, friends, and stress. In Exercise 24.4 (page 637), you examined the effect of pets in stressful situations from the EESEE story "Stress among Pets and Friends." The ANOVA F test had a very small P-value, giving good reason to conclude that mean heart rates under stress do differ depending on whether a pet, a friend, or no one is present. Table 26.2 displays the subject's mean heart rate during a stressful task. Do the means for the two treatments (pet, friend) differ significantly from each other and from the mean for the control group?

(a) What are the three null hypotheses that formulate these questions?

(b) We want to be 90% confident that we don't wrongly reject any of the three null hypotheses. Tukey pairwise comparisons can meet this condition. What conclusions can be drawn from Tukey pairwise comparisons?

Data are found in "ta24-03.csv"