

5. An experiment was conducted to compare three therapies for treating anorexia in young girls to help them gain weight: control (standard) therapy, cognitive behavioral therapy and family therapy. A total of $N = 51$ girls were randomly assigned to the three groups with $n = 17$ per group. The weight gain data are given in the following table.

Control Therapy	-0.5, -9.3, -5.4, 12.3, -2.0, -10.2, -12.2, 11.6, -7.1, 6.2, -0.2, -9.2, 8.3, 3.3, 11.3, 0.0, -1.0
Behavioral Therapy	1.7, 0.7, -0.1, -0.7, -3.5, 14.9, 3.5, 17.1, -7.6, 1.6, 11.7, 6.1, 1.1, -4.0, 20.9, -9.1, 2.1
Family Therapy	11.4, 11.0, 5.5, 9.4, 13.6, -2.9, -0.1, 7.4, 21.5, -5.3, -3.8, 13.4, 13.1, 9.0, 3.9, 5.7, 10.7

a) (10 points) build a 95% confidence interval for each therapy.

b) (10 points) Construct ANOVA table and comment on the result.