

Does how long young children remain at the lunch table help predict how much they eat? Here are data on 20 toddlers observed over several months at a nursery school. "Time" is the average number of minutes a child spent at the table when lunch was served. "Calories" is the average number of calories the child consumed during lunch, calculated from careful observation of what the child ate each day.

Time	21.4	30.8	37.7	33.5	32.8	39.5	22.8	34.1	33.9	43.8
Calories	472	498	465	456	423	437	508	431	479	454
Time	42.4	43.1	29.2	31.3	28.6	32.9	30.6	35.1	33.0	43.7
Calories	450	410	504	437	489	436	480	439	444	408

1. Describe the relationship in a graph and by regression analysis.
2. Perform a test of significance for these data. (Sections III and IV of an Inference Toolbox).
3. Construct a 90% confidence interval to estimate how rapidly calories consumed changes as time at the table increases. (Sections III and IV of an Inference Toolbox).