

Quantitative analysis, sometimes called data analysis, or “curve fitting,” has as its objective determining a functional relationship given a set of data values, including the expression of this relationship as a closed form, mathematical equation. The R^2 value, or correlation coefficient, is a measure of how close the data points are to the curve selected. An R^2 value of 1.000 is a perfect fit. In those cases where one has knowledge of data beyond the data points given, one should extrapolate the curve and judge whether it could reasonably represent additional data. In the following three exercises we will consider only linear, quadratic, and exponential curves (and equations).

You have been given a *Graph Scoring Guide* and three assignment worksheets: *A Person's Best Friend: Dog Model, Part 1* and *Part 2*, and *Modeling Human Growth*. Excel instructions have been provided in class.

Complete *Dog Model, Part 1* worksheet and bring your work to class Wednesday, January 11 for class discussion. You will turn in your work on *Part 1* at the end of class.

Complete *Dog Model, Part 2* worksheet begun in class. Be sure to answer questions in the worksheet in complete sentences. The first due date for this part of the assignment is Wednesday, January 18. It will be returned to you Monday, January 23 and is due again Wednesday, January 25. (Note that Monday, January 16 is a holiday.)

Complete the *Modeling Human Growth* worksheet. The first due date for this part of the assignment is Wednesday, January 18. It will be returned to you Monday, January 23 and is due again Wednesday, January 25.