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*Quadratic vs. Exponential — a Growth Model for Social Security.*

Quadratic and exponential models are studied in intermediate algebra. The right half of a concave-up parabola may appear to be similar to the graph of an exponential function with a base greater than 1. Data on federal expenditures on social insurance (Social Security, Medicare and Medicaid) are used to create a quadratic and an exponential model. The graphs appear similar for the domain of the data. When the two models are used to predict the expenditures in the year 2050, the results are quite different. The model you choose may be determined by whether you are the incumbent or the challenger. This investigation allows students to see these functions utilized as models for real data and they can begin to see differences in the two types of functions. (Received July 30, 2005)