**Linear and Quadratic Functions**

Chapter 4 Notes and Assignments

Math 1050

* **4.1** Linear Functions and their Properties

Pg. 278 #’s 16, 20, 24, 26, 29, 30, 37, 38, 42, 47-50

* **4.2** Linear Models: Building Linear Functions from Data

Pg. 287 #’s 12, 13, 16, 19, 22

* **4.3** Building Models from Verbal Description and from Data

Pg. 297 #’s 11-18, 20, 26, 29, 36, 41, 42, 47, 51, 54, 55, 62, 78

Quiz 4.1-4.3

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Objectives: Be familiar with terminology average rate of change and slope for linear functions; Be able to tell whether a function is linear given a table of points; Be able to create linear models and answer questions using a linear model; Be able to draw a scatterplot diagram; Be able to examine a scatter diagram and determine whether the relationship is linear or non-linear; Be able to use a graphing utility to find the line of best fit; Given a quadratic function f(x)=ax^2+bx+c, be able to write it in the standard form f(x)=a(x-h)^2+k (without a calculator); Be able to graph a quadratic function using transformations (without a calculator); For a quadratic function, be able to find the vertex, axis of symmetry, intercepts, domain, range, and intervals where the function is increasing/decreasing