GUIDED NOTES – 4.2 MODELING WITH LINEAR FUNCTIONS

LEARNING OBJECTIVES

In this section, you will:

- Build linear models from verbal description.
- Model a set of data with a linear function.

BUILDING LINEAR MODELS FROM VERBAL DESCRIPTIONS

- List the 8 problem solving strategies that would be used for any type of functions.

    1.

    2.

    3.

    4.

    5.

    6.

    7.

    8.

- Write out the 7 step process for using a linear function to solve a problem, given a word problem that includes two pairs of input and output values.

    1.

    2.

    3.

    4.

    5.

    6.

    7.

Try It: Read Example 1 in the text, then answer the following.

A company sells doughnuts. They incur a fixed cost of $25,000 for rent, insurance, and other expenses. It costs $0.25 to produce each doughnut.

a. Write a linear function to represent the cost C of the company as a function of x, the number of doughnuts produced.

b. Find and interpret the y-intercept.