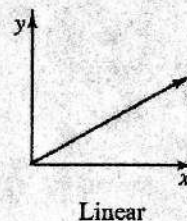## MATH NOTES

METHODS AND MEANINGS

## Families of Functions

There are several "families" of special functions that you will study in this course. One of these is called **direct variation** (also called **direct proportion**) which is a **linear** function. The data you gathered in the "Sign on the Dotted Line" lab (in problem 1-9) is an example of a linear function.

Another function is **inverse variation** (also called **inverse proportion**). The data collected in the "Hot Tub Design" lab (in problem 1-9) is an example of inverse variation.
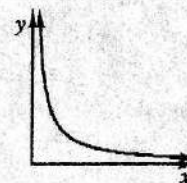
You also observed an **exponential** function. The growth of infected people in the "Local Crisis" (in problem 1-9) was exponential.
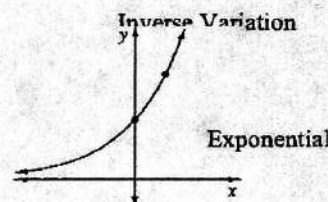
Note that we will define and develop these and other functions later in the course, and formally introduce functions in Section 2 of this chapter.

Linear

Inverse Variation

Exponential

Review & Preview

1-13. Consider the situation described below.

a. Meredith lives 24 blocks from her friend's house. If she travels 1 block every minute, how many minutes will it take her to reach her friend's house? What if she travels 2 blocks every minute? Show how you calculated each answer.

b. Copy and complete the table below to represent the amount of time it would take Meredith to get to her friend's house if she traveled at different rates.

Speed (in blocks per minute)	1	2	3	4	6	8	10	12	24
Time to Get to Friend's House (in minutes)									

c. What happens to the time it takes to get to her friend's house as Meredith's speed increases? Explain.