Name _____ Date _____ Class _____

Additional Practice

1. a. The graph below shows the relationship between two variables. What are
the variables?

Holiday Food Drive

Number of Cans Collected

Day
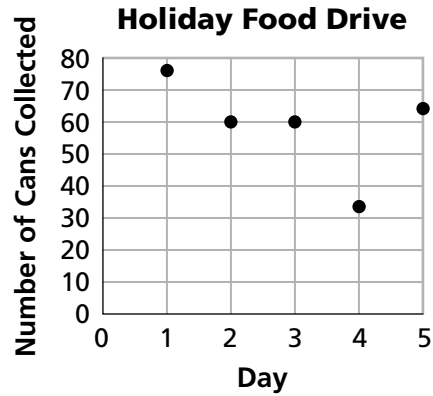
b. On which day were the most cans of food collected? How many cans were
collected on that day?

c. What total number of cans was collected over the 5 days? Explain your
reasoning.

d. What is the mean number of cans collected over the five days? Explain
your reasoning.

e. On this graph, does it make sense to connect the points with line segments?
Explain your reasoning.

Additional Practice *(continued)*

2. Emma and her mother go walking one evening. Emma keeps track of their pace over their hour and ten-minute walk. She made the following notes:

- We started at 7:00 PM and walked quickly for 15 minutes.
- We stopped for 5 minutes to talk to a friend.
- We walked slowly for 20 minutes to look at the neighbor's yards.
- At 7:40, we stopped for 15 minutes to get an ice cream cone.
- We walked back at a slow pace for 10 minutes.
- Then we walked very quickly for 5 minutes (speed walking).
- We got back at 8:10 and had walked 2 miles.

a. Make a table of (time, distance) data that reasonably fits the information in Emma's notes.

b. Sketch a coordinate graph that shows the same information as the table.

c. Does it make sense to connect the points on this graph? Explain your reasoning.

d. If Emma decided to only show one method of displaying the data (time, distance) to her mother, which should she choose if she wanted to show her mother the changes in their walking speed? Explain your choice.

Additional Practice *(continued)*

3. a. Andrew's mother kept the chart below of the number of words his sister Sarah could say at the end of each month from age 1 month to 24 months. Sarah did not say a word until 12 months, so from 1 to 11 Andrew's mother wrote 0. Make a coordinate graph of these data. Explain how you chose the variables for each axis.

Age (months)	Number of Words Sarah can Say
1–11	0
12	1
13	1
14	2
15	3
16	7
17	10
18	15
19	24
20	28
21	30
22	47
23	51
24	62

b. Describe how the number of words Sarah can say changed as she got older (as the number of months passed).

c. During what month did Sarah learn to say the most words? The least (not counting from 1 to 11 months?

Additional Practice *(continued)*

4. The Student Council of Metropolis Middle School voted on seven different proposals related to school activities. There are nine students on the Student Council and each student voted "yes" or "no" for each proposal. Use the information in the table at the right to answer parts (a)–(d).

   School Activity Proposals

Proposal	Yes Votes
1	6
2	9
3	3
4	8
5	6
6	5
7	7

   a. What are the variables shown in the table?

   b. Which variable is the independent variable and which is the dependent variable? Explain your reasoning.

   c. Make a coordinate graph of the data in the table. Label your *x*-axis and *y*-axis with the correct independent or dependent variable.

   d. Make a coordinate graph showing how many students voted "no" on each of the seven proposals. Explain how you find the data for your graph. Label the *x*-axis and *y*-axis with the appropriate independent or dependent variable.

Additional Practice *(continued)*

5. Below is a chart of the water depth in a harbor during a typical 24-hour day.
The water level rises and falls with the tide.

Hours Since Midnight	0	1	2	3	4	5	6	7	8	9	10	11	12
Depth (meters)	8.4	8.9	9.9	10.7	11.2	12.1	12.9	12.2	11.3	10.6	9.4	8.3	8.0

Hours Since Midnight	13	14	15	16	17	18	19	20	21	22	23	24
Depth (meters)	8.4	9.4	10.8	11.4	12.2	13.0	12.4	11.3	10.4	9.8	8.6	8.1

   a. Make a coordinate graph of the data.

   b. During which time interval(s) does the depth of the water increase the most?

   c. During which time interval(s) does the depth of the water decrease the most?

   d. Would it make sense to connect the points on the graph? Why or why not?

   e. Is it easier to use the table or the graph to answer parts (b) and (c)?
      Explain.

Additional Practice *(continued)*

6. Make a table and a graph of (time, temperature) data that fit the following
information about a day on the road:

- We started riding at 9:00 A.M. once the fog had burned off. The day was
  quite cool. The temperature was 52°F, and the sun was shining brightly.

- About midmorning, the temperature rose to 70°F and cloud cover moved
  in, which kept the temperature steady until lunch time.

- Suddenly the sun burst through the clouds, and the temperature began to
  climb. By late afternoon, it was 80°F.

7. Make a graph that shows your hunger level over the course of a day. Label the
x-axis from 6 A.M. to midnight. Write a story about what happened during the
day in relation to your hunger level.