

Chapter 2 Spreadsheet Activity 2

FOR USE WITH SECTIONS 2.3, 2.4, 2.5, AND 2.6

Section 2.3

Sheryl wants to graph a line. She knows that the slope is $\frac{2}{5}$ and that one point on the line is (3, 2). She uses a spreadsheet to find other points on the line.

	A	B	C	D	E	F
1	Point on Graph		Slope of graph	2		5
2	x=		3			
3	y=		2			
4						
5		Other points				
6	x	Y				
7		8	4			
8		13	6			
9		18	8			
10		23	10			
11		28	12			
12		33	14			

1. What formula is entered in cell A7? _____
2. What formula is entered in cell B7? _____
3. Consider the line that has a slope of $-\frac{2}{3}$ and contains the point (-1, 4). List three additional points that are on the line.

Sections 2.4 and 2.5

Consider the situation in Checking Key Concepts question 1 on page 68 of the text. You can use a spreadsheet to perform a linear regression for this situation. Three formulas (**Correl**, **Intercept**, and **Slope**) are needed. To find the slope in cell B4, enter =SLOPE(B2:G2,B1:G1). Note that in the parentheses, the range of y-values comes first and then the range of x-values. Similarly, to find the intercept in cell B5, enter =INTERCEPT(B2:G2,B1:G1). To find the correlation coefficient r , enter =CORREL(B2:G2,B1:G1) in cell B6.

	A	B	C	D	E	F	G
1	Fat (g)	4.3	42.3	50.2	52.3	60	79.9
2	Calories	96	435	502	504	552	718
3	Linear Reg						
4	slope	8.205196538					
5	intercept	72.61636673					
6	r=	0.997732643					

4. What is the equation of the least-squares line? _____
5. Does the value of r in cell B6 show that there is a strong correlation between the amount of fat and the number of calories in salad dressing? Explain.
- _____

Section 2.6

You can use a spreadsheet to generate a table similar to the one in Example 2 on page 79 of the text.

	A	B	C
1	t	$x=2t$	$y=-3t$
2	0	0	0
3	0.05	0.1	-0.15
4	0.1	0.2	-0.3
5	0.15	0.3	-0.45
6	0.2	0.4	-0.6
7	0.25	0.5	-0.75
8	0.3	0.6	-0.9

6. What formula do you enter in cell B2? _____
7. What formula do you enter in cell C2? _____

Use **Fill Down** to complete columns B and C.

Using the ChartWizard® of Excel®

You can graph the data in columns B and C by using the ChartWizard. You will find the ChartWizard icon at the top of the screen. It looks like a small graph. After you have highlighted columns B and C and found a place to put your graph, follow the five steps described below.

In the first step, enter $\$B\$2:\$C\8 as the range. Then press **Next**. The second step is to highlight the picture of a line graph and press **Next**. For the third step, note that chart #1 is already highlighted, so simply press **Next**. In step four, your screen should show the following:

Data Series in

*Columns

Use first column for

*Category (X) axis labels

Use first row for

*First Data Point

Press **Next**. For the fifth and final steps, create any titles and labels that you want to use. Then press **OK** to display the graph.

Try this five-step procedure for one of the exercises in Section 2.6.

