

Practice 10

FOR USE WITH SECTION 2.4

The table below shows the heights and numbers of stories of some of the tallest buildings in the United States. Use this table in Exercises 1 and 2.

Name	No. of stories	Height (ft)	Name	No. of stories	Height (ft)
Sears Tower, Chicago	110	1454	InterFirst Plaza Tower, Dallas	71	921
Empire State Bldg., N.Y.C.	102	1250	Society Center, Cleveland	57	888
Amoco, Chicago	80	1136	First Interstate Bank, L.A.	62	858
Chrysler Bldg., N.Y.C.	77	1046	First National Bank, Chicago	60	850
Allied Bank Plaza, Houston	71	972	USK Tower, Pittsburgh	64	841
Columbia Center, Seattle	76	954	NCNB Corp. Ctr., Charlotte	60	830

1. Make a scatter plot of the data, using number of stories on the horizontal axis and height on the vertical axis. Draw a line of best fit. Find an equation of the line.
2. Use your equation to predict the height of a building with 90 stories.

The table below shows the winnings, in thousands of dollars, of the leading money winners in the Ladies Professional Golf Association in selected years. Use this table in Exercises 3 and 4.

Year	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Winnings	291.4	266.8	416.5	492.0	466.0	347.3	654.1	863.6	763.1	693.3

3. Make a scatter plot of the data, using years after 1980 on the horizontal axis and winnings (in thousands of dollars) on the vertical axis. Draw a line of best fit. Find an equation of the line.
4. The actual winnings of the leading money winner in 1993 was about \$596,000. How does this compare with the value predicted by your equation?
5. The table below shows January and July high temperatures (in °F) for selected cities of the world. Make a scatter plot, using the January high temperature on the horizontal axis and the July high on the vertical axis. Find a line of best fit and an equation of the line.

City	Jan. high	July high	City	Jan. high	July high
Athens, Greece	54	90	Madrid, Spain	47	87
Budapest, Hungary	35	82	Montreal, Canada	21	78
Cairo, Egypt	65	96	Tehran, Iran	45	99
Istanbul, Turkey	45	81	Tokyo, Japan	47	83