

Basic Alg 1.7

Construct and interpret line graphs,

Construct and interpret histograms, and stem-and-leaf plots

line graph *Show trends*

histogram *compare totals*

~~cumulative frequency histogram~~

stem and leaf plot *helps organize*

The table at the right shows the percent of homes in California with internet access. (Example 1)

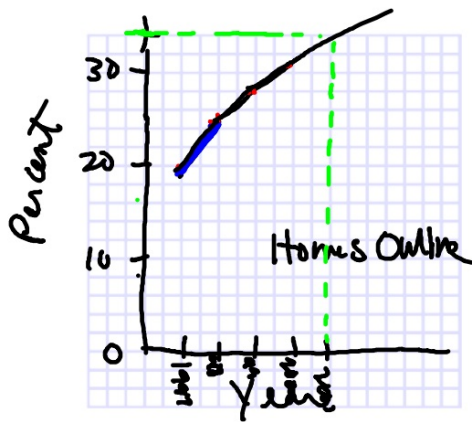
4. Make a line graph of the data.
5. Between which two years was the growth of on-line access the greatest?
6. Predict the percent of homes with on-line access in the year 2001.

X Year	Y Percent of Homes On-Line
1997	19
1998	25
1999	28
2000*	31

Source: Pacific Telesis
*estimated

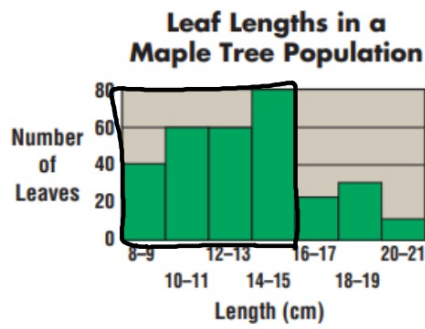
(6)
31
-
3
-
3
-

34%



Refer to the histogram at the right.

7. Determine the length of most maple leaves. *(Example 2)*
14-15cm
8. How many leaves were sampled? *(Example 2)*
260
9. Construct a cumulative frequency histogram of the data. *(Example 3)*
10. How many of the leaves were no more than 15 centimeters long? *(Example 3)*



$$40 + 60 + 60 + 80 + 20 + 30 + 10$$

$$\begin{array}{r} 40 \\ 60 \\ 60 \\ 80 \\ \hline 240 \end{array}$$



et
The percent of unemployment among workers ages 16 to 19 is shown at the right.

12. Make a line graph of the data.
13. When was unemployment at its highest?
14. Describe the general trend in unemployment among teens ages 16 to 19.

Year	Percent of Working Teens Unemployed
1992	17
1993	19
1994	18
1995	17.5
1996	17
1997	15
1998	13

Source: U.S. Labor Dept.

In a survey, men and women were asked how long they were willing to stay on hold when calling a customer service representative about a product they purchased. The results are shown in the table at the right.

How Long on Hold?		
Time (min)	Percent of Men	Percent of Women
0-1	28	18
2-3	32	36
4-5	23	27
6-7	7	10
8+	10	9

Source: Bruskin/Goldring for Inference

15. Make a histogram showing the men's responses.
16. Make a histogram showing the women's responses.
17. How do your histograms compare?
18. Who do you think would hang up the phone sooner, men or women?



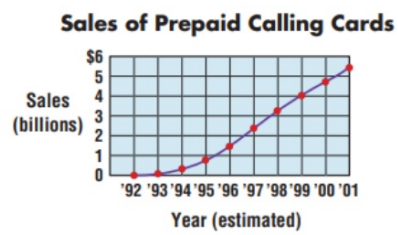
19. Sports Danny stayed late after every basketball practice to shoot 5 free throws. The chart shows how many free throws he made out of 5 for each night of practice.

- a. Make a frequency table to organize the data.
- b. If Danny has basketball practice 5 days a week, how many weeks did he stay late, shooting free throws?
- c. What number of free throws did he make most often?
- d. How many times did he not make any free throws?
- e. How many times did he make all 5 free throws?

Free Throws (out of 5)			
1	4	0	2
1	3	3	2
4	3	3	2
5	3	2	2
1	0	4	3

20. **Communication** The line graph shows the growth in sales of prepaid calling cards.

- a. Between which two years was growth in sales the greatest?
- b. Predict the number of sales for the year 2002.



Source: Atlanta-ACMA