




These data represent the record high temperatures for each of the 50 states. Construct a grouped frequency distribution for the data using 7 classes.


112	100	127	120	134	118	105	110	109	112
110	118	117	116	118	122	114	114	105	109
107	112	114	115	118	117	118	122	106	110
116	108	110	121	113	120	119	111	104	111
120	113	120	117	105	110	118	112	114	114

Source: *The World Almanac and Book of Facts*.


 8. The heights in inches of commonly grown herbs are shown below. Organize the data into a frequency distribution with six classes, and think of a way in which these results would be useful.

18	20	18	18	24	10	15
12	20	36	14	20	18	24
18	16	16	20	7		

Source: *The Old Farmer's Almanac*.


 9. A survey taken in a restaurant shows the following number of cups of coffee consumed with each meal. Construct an ungrouped frequency distribution.

0	2	2	1	1	2
3	5	3	2	2	2
1	0	1	2	4	2
0	1	0	1	4	4
2	2	0	1	1	5

 10. The average GMAT scores for the top 30 ranked graduate business schools are listed below. Construct a frequency distribution with six classes.


718	703	703	703	700	690	695	705	690	688
676	681	689	686	691	669	674	652	680	670
651	651	637	662	641	645	645	642	660	636

Source: *U.S. News & World Report Best Graduate Schools*.

 11. The average quantitative GRE scores for the top 30 graduate schools of engineering are listed below. Construct a frequency distribution with six classes.

767	770	761	760	771	768	776	771	756	770
763	760	747	766	754	771	771	778	766	762
780	750	746	764	769	759	757	753	758	746

Source: *U.S. News & World Report Best Graduate Schools*.

 12. The number of unhealthy days in selected U.S. metropolitan areas is shown. Construct a frequency distribution with seven classes. (The data in this exercise will be used in Exercise 22 in Section 3-2.)

61	88	40	5	12	12	18	23	1	15
6	81	50	21	0	27	5	13	0	24
5	1	32	12	23	93	38	29	16	0
1	22	36							

Source: *N.Y. Times Almanac*.

4. The salaries (in millions of dollars) for 31 NFL teams for a specific season are given in this frequency distribution:

<u>Class limits</u>	<u>Frequency</u>
39.9–42.8	2
42.9–45.8	2
45.9–48.8	5
48.9–51.8	5
51.9–54.8	12
54.9–57.8	5

Source: NFL.com.

Construct a histogram, frequency polygon, and ogive for the data; and comment on the shape of the distribution.

5. Thirty automobiles were tested for fuel efficiency, in miles per gallon (mpg). The following frequency distribution was obtained. Construct a histogram, frequency polygon, and ogive for the data.

<u>Class boundaries</u>	<u>Frequency</u>
7.5–12.5	3
12.5–17.5	5
17.5–22.5	15
22.5–27.5	5
27.5–32.5	2