

Basic Alg 1.7

Construct and interpret line graphs,

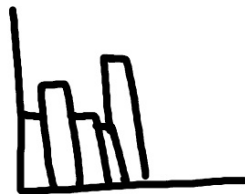
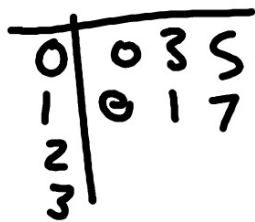
Construct and interpret histograms, and stem-and-leaf plots

line graph

histogram

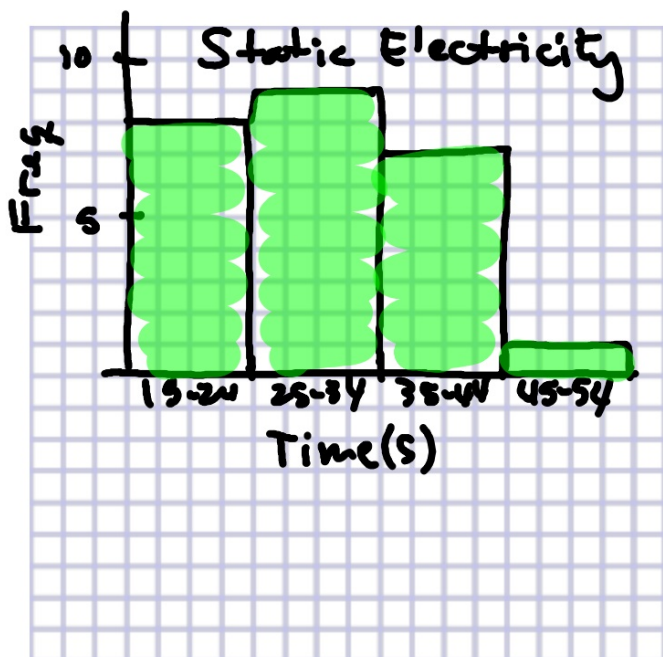
cumulative frequency histogram

stem and leaf plot



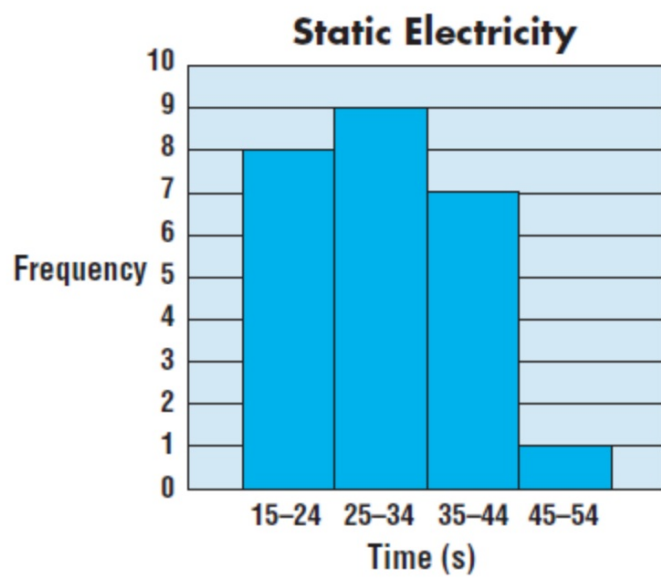
The frequency table is from Example 2 in Lesson 1–6. It shows the various time intervals that “charged” balloons remained stuck to the wall. Construct a histogram of the data.

X Static Electricity Y		
Time (s)	Tally	Frequency
15–24	III	8 ✓
25–34	IIII	9 ✓
35–44	II	7 ✓
45–54	I	1 ✓

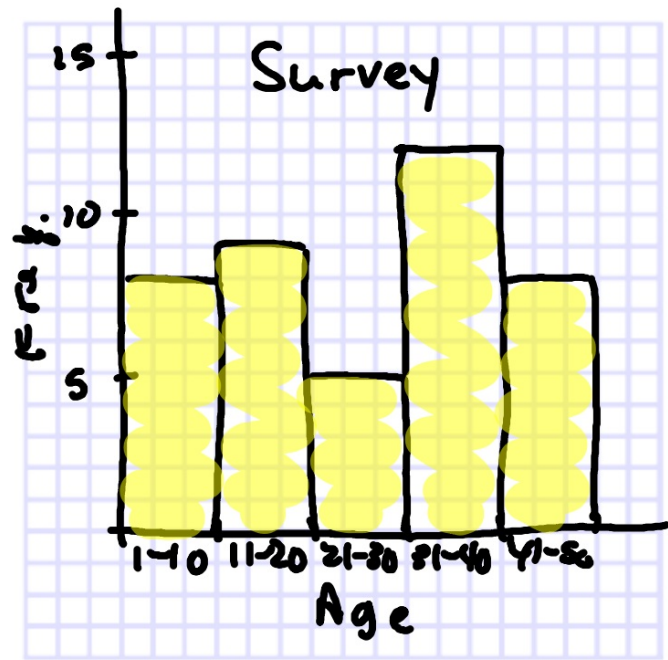


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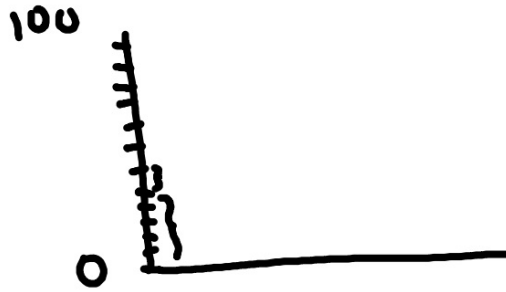
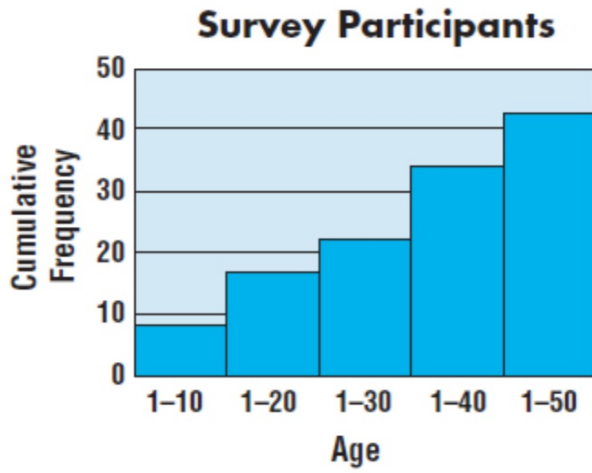
- Equal intervals on each axis
- All bars same width and touch each other



Survey		
Age	Tally	Frequency
1-10	III III	8 ✓
11-20	III IIII	9 ✓
21-30	III	5 ✓
31-40	III IIII II	12 ✓
41-50	III III	8 ✓



Survey		
Age	Frequency	Cumulative Frequency
1-10	8	8
11-20	9	17
21-30	5	22
31-40	12	34
41-50	8	42



$$1|6 = 16$$

The greatest common place value for each data item is used to form the *stem*.

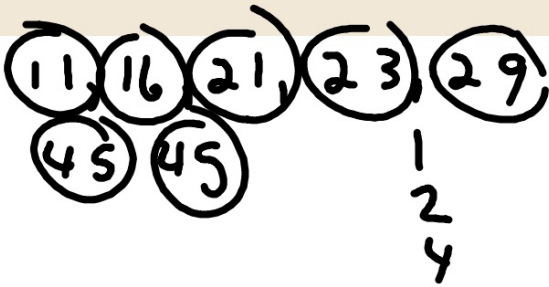
Stem	Leaf
1	1 6
2	1 3 9
3	
4	5 5

The *leaves* are formed by the next greatest place value.

$$2|3 = 23$$

$$4|5 = 45$$

A *key* is always included. This shows how the digits are related.



Stem	Leaf
10	2 8
11	4 5
12	5 7
13	1 9

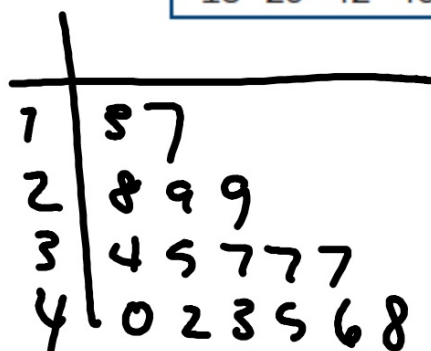
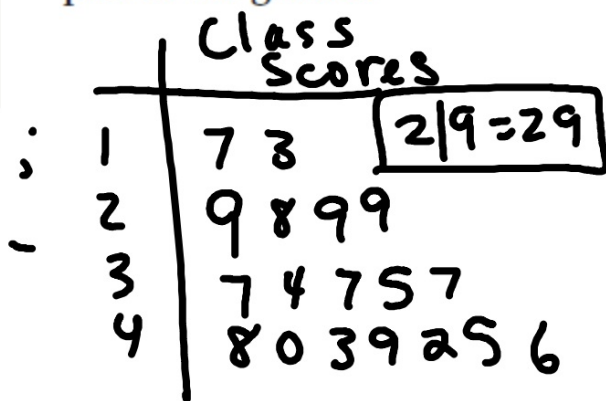
$$11 | 5 = 115$$

102	125
108	127
114	131
115	139

$$1 | 5 = 15$$

- 4 The table shows the class results on a 50-question test. Make a stem-and-leaf plot of the grades.

Class Scores					
29	37	48	40	17	34
28	43	37	35	49	29
13	29	42	45	37	46



Stem	Leaf
1	7 3
2	9 8 9 9
3	7 4 7 5 7
4	8 0 3 9 2 5 6

$$\boxed{3|7 = 37}$$

Your Turn

- c. Make a stem-and-leaf plot of the quiz grades below.
54, 55, 60, 42, 41, 75, 50, 68, 62, 54, 70, 50

