Alg 1 0.13

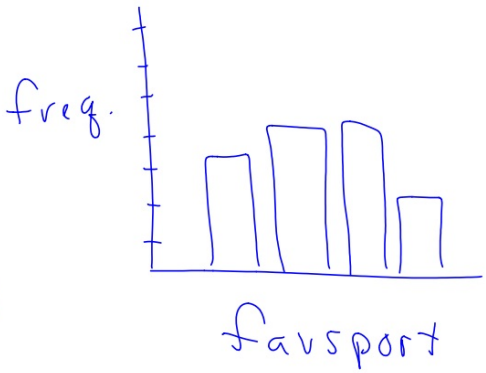
information

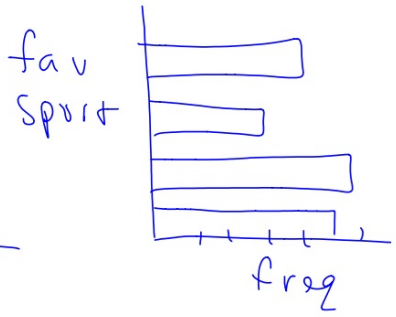
Represent sets of data using different visual displays

- frequency table
- → bar graph
  - horizontal
  - vertical
- cumulative frequency
- → histogram
- → line graph
- → stem-and-leaf plot
- → circle graph (pie chart)
- ~~box-and-whisker plot (boxplot)~~

category + ||||

running total





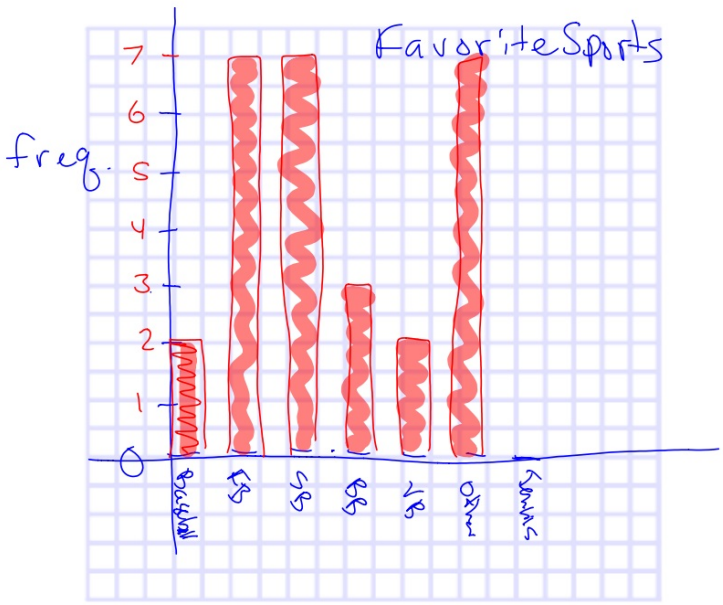
Activity: Favorite sport?

Example 1 Make a Bar Graph

Make a bar graph to display the data.

Sport	Tally	Frequency
basketball	𝍸 𝍸 𝍸	15
football	𝍸 𝍸 𝍸 𝍸 𝍸	25
soccer	𝍸 𝍸 𝍸 III	18
baseball	𝍸 𝍸 𝍸 𝍸 I	21

* vertical spaces between



Example 2 Make a Histogram and a Cumulative Frequency Histogram

Make histograms of the frequency and the cumulative frequency.

Age at Inauguration	40–44	45–49	50–54	55–59	60–64	65–69
U.S. Presidents	2	7	13	12	7	3

70

<

Find the cumulative frequency for each interval.

Age	< 45	< 50	< 55	< 60	< 65	< 70

40-45 2

40-49 9

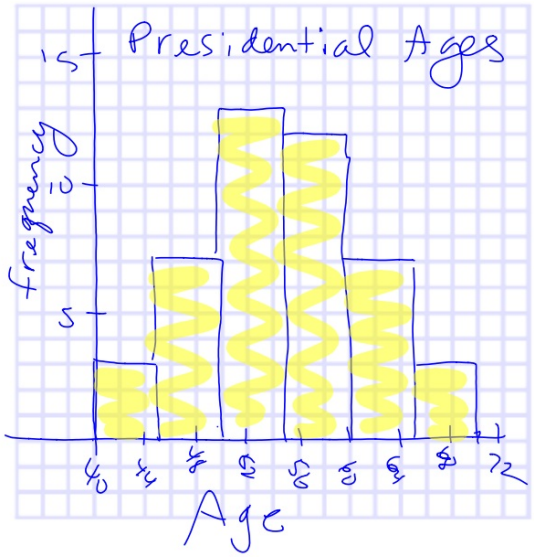
<55 22

<60 34

<65 41

<70 44

graph

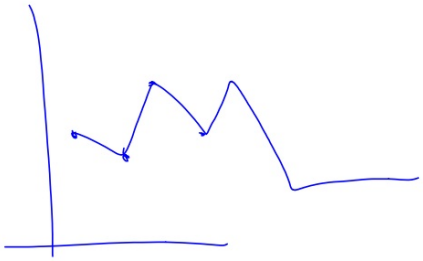


Example 3 Make a Line Graph

Sales at the Marshall High School Store are shown in the table. Make a line graph of the data.

School Store Sales Amounts					
September	$670	December	$168	March	$412
October	$229	January	$290	April	$309
November	$300	February	$388	May	$198

trend



Real-World Example 4 Make a Stem-and-Leaf Plot

ANIMALS The speeds (mph) of 20 of the fastest land animals are listed at the right. Use the data to make a stem-and-leaf plot.

42	40	40	35	50
32	50	36	50	40
45	70	43	45	32
40	35	61	48	35

Source: *The World Almanac*

Stem

tens	ones
3	5, 2, 6, 2, 5, 5
4	2, 0, 0, 0, 5, 3, 5, 0, 8
5	0, 0, 0
6	1
7	0

3|5 = 35

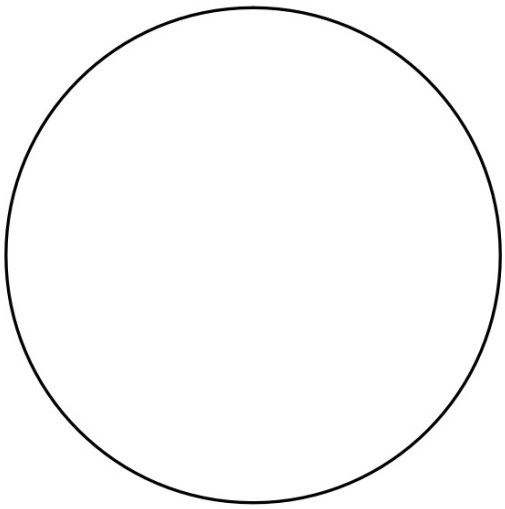
Number of degrees in a circle?

Skip

Example 5 Make a Circle Graph

The table shows how Lily spent 8 hours of one day at summer camp. Make a circle graph of the data.

Summer Camp	
Activity	**Hours**
canoeing	3
crafts	1
eating	2
hiking	2



Example 6 Make a Box-and-Whisker Plot

Draw a box-and-whisker plot for these data. Describe how the outlier affects the quartile points.

14, 30, 16, 20, 18, 16, 20, 18, 22, 13, 8

Boxplot

P-45
1-7