

1.1

1. LOTS of NEW stuff right away
2. The book has calculator commands
3. About 90% of technology by week 5



Three adventurers are in a hot-air balloon. Soon, they find themselves lost in a canyon in the middle of nowhere. One of the three says, "I've got an idea. We can call for help in this canyon and the echo will carry our voices far." So he leans over the basket and yells out, "Helllloooooo! Where are we?" They hear his voice echoing in the distance. Fifteen minutes pass. Then they hear this echoing voice: "Helllloooooo! You're lost!!" One of the three says, "That must have been a statistician." Puzzled, his friend asks, "Why do you say that?"

The reply: "For three reasons. One - he took a long time to answer, two - he was absolutely correct, and three - his answer was absolutely useless."

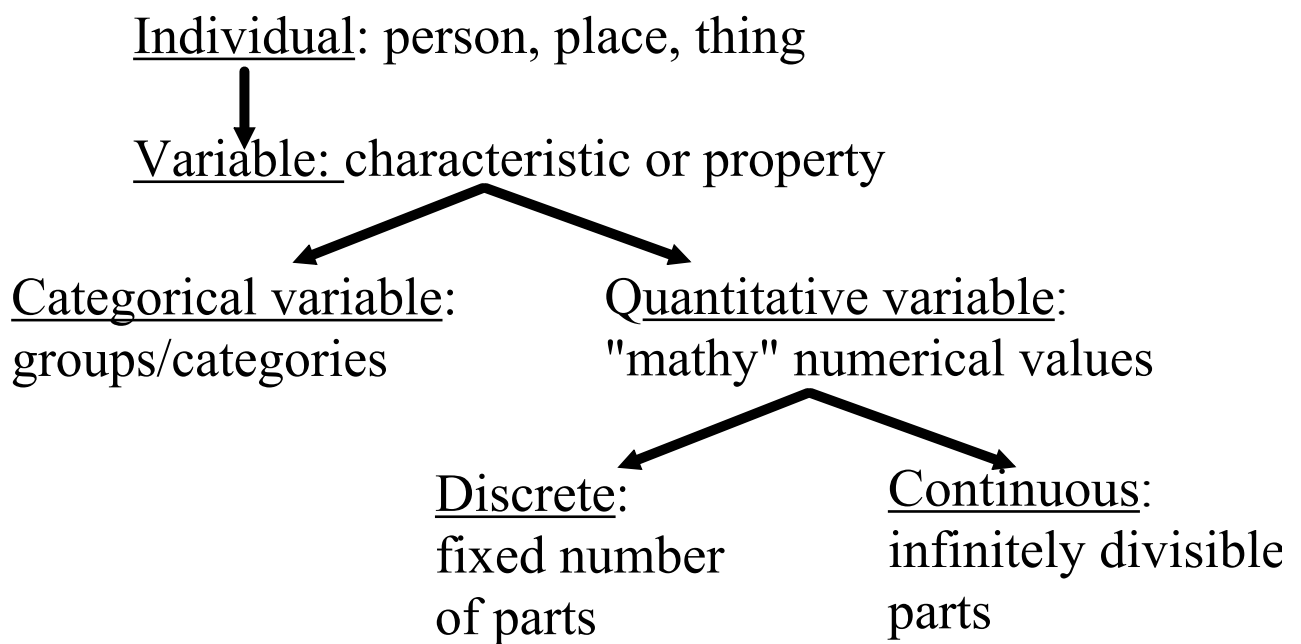
😊 According to recent surveys, 51 percent of the people are in the majority.

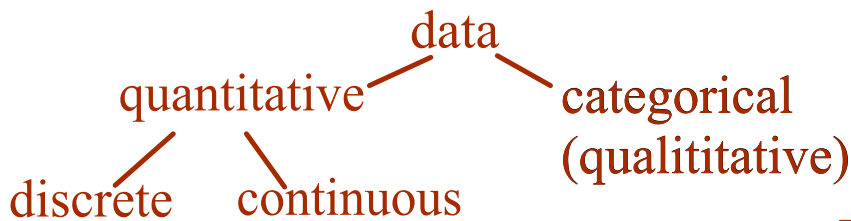
Did you hear the one about the politician who promised that, if he was elected, he'd make certain that everybody would have an above average income?

A statistician is someone who can have his head in an oven and his feet in ice, and say that on the average he feels great.

It is proven that the celebration of birthdays is healthy. Statistics show that those people who celebrate the most birthdays will be the oldest.

42.35 percent of statistics are meaningless.
Meaningless statistics are up 6.5 percent from last year.





1. The models of cars in the parking lot.

Answer

2. The heights of students in this class.

Answer

3. The age of pennies in a jar, based on the minting date stamped on them.

Answer

4. The ages of current NASCAR drivers.

Answer

5. The number of teachers who are 22-30, 31-40, 41-50, or over 50.

Answer

6. Percent of students passing all math classes at FHN spring of 1996.

Answer

7. The height of a falling object at specified moments in time.

Answer

8. The number of runs in each game the Cardinals played in 2008.

Answer

Distribution: (of a variable)
what values taken and how often

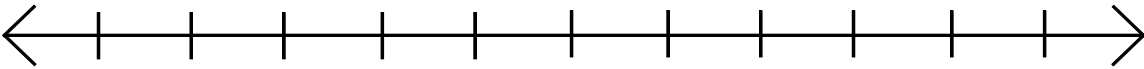
now you can do 1.1, 1.3, and 1.5

Let's graph eye color for a sample of the AP stats students:



or, roller coaster data, heights, student data, grades, etc.

dot plot of pulse



beats per minute

stem & leaf (stemplot)

42
45
53
44
40
65
54
24
50
37
45
44

split stems

In graphs, look for **SOCS**

shape symmetric, asymmetric,
single-peaked, double-peaked, multi-peaked,
skewed left, skewed right, bell-shaped, uniform

outliers values far from the rest of the data

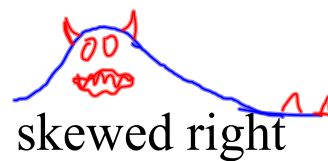
center center value, balance point, middle of the data

spread how far apart are the data values

SKew is where it is SKinny.

Name where the distribution's long tail is located;
NOT where the peak is located.

I've never been skiing, so I would ski the skewed slope
because it's longer and more gradual.



now you can do 1.7, 1.9, and 1.11

Histogram

67	75
68	69
64	73
71	69
72	68
73.5	73
74.8	69
72	68
69	72
71	69
72	71
71	69

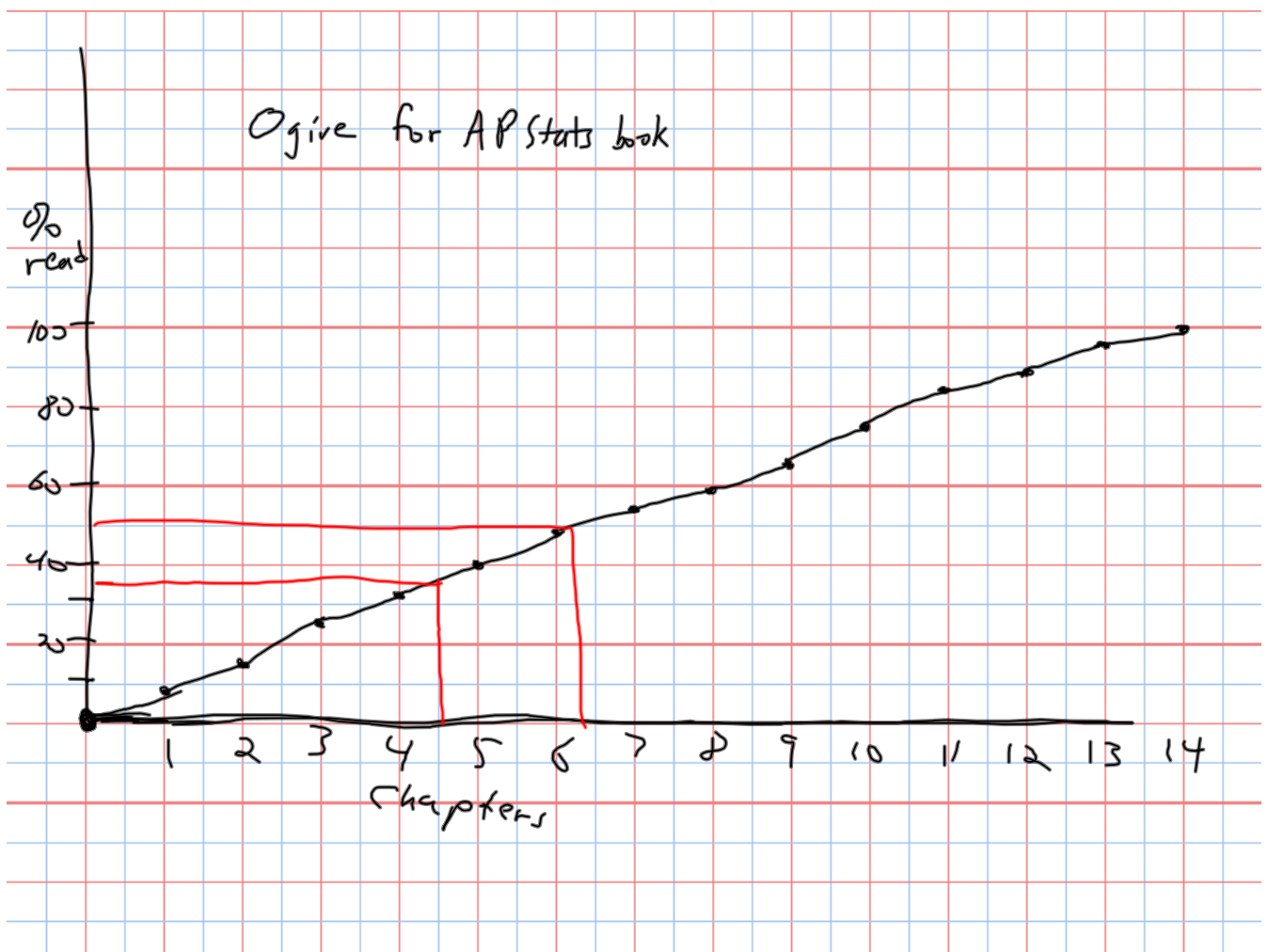
Histograms are explained on pg. 21

now you can do pg. 22-27
1.13, 1.15, and 1.17

Chapter	Pages	Cumulative Total	Cumulative Percents
1	73	73	$73/812=.09$ 9%
2	44	117	$117/812=.14$ 14%
3	74	191	$191/812=.24$ 24%
4	73	264	$264/812=.33$.
5	60	324	$324/812=.40$.
6	63	387	$387/812=.48$.
7	48	435	$435/812=.54$
8	48	483	$483/812=.59$
9	47	530	$530/812=.65$
10	83	613	$613/812=.75$
11	68	681	$681/812=.84$
12	42	723	$723/812=.89$
13	54	777	$777/812=.96$
14	35	812	$812/812=1.00$

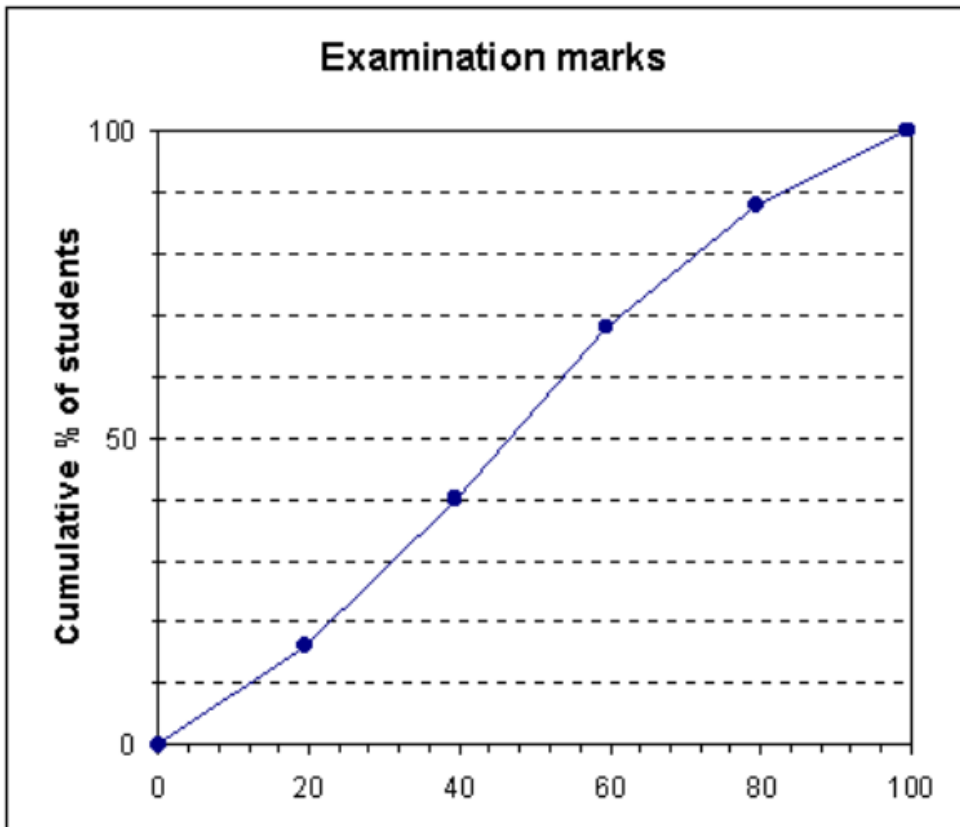
Ogive
or
Cumulative
Relative
Frequency
Plot

Ogive for AP Stats book



heights of 22 female students

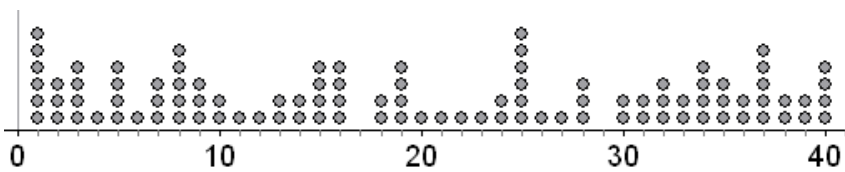
56 64
61 66
62 66
62 66
63 66
63 66
63 66.5
63 68
63 68
64 70
64 71



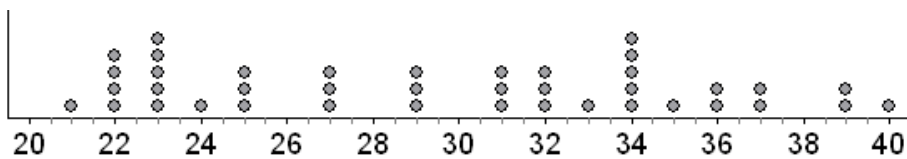
now you can
do 1.19
on page 31

- Be able to construct graphs by hand, without calculator help.
- Label axes and scales.
- Refer to graphs explicitly.
- Use context and be specific!
- Don't just say, "The female times are clearly higher than the male times.", instead say, "The median female time is higher than the first quartile of the male times."
- Support statements by marking on graphs. Markings can make the difference between 2 scores.
- Answer the question!

The *p*th percentile of a distribution is the value such that *p* percent of the observations fall at or below it.



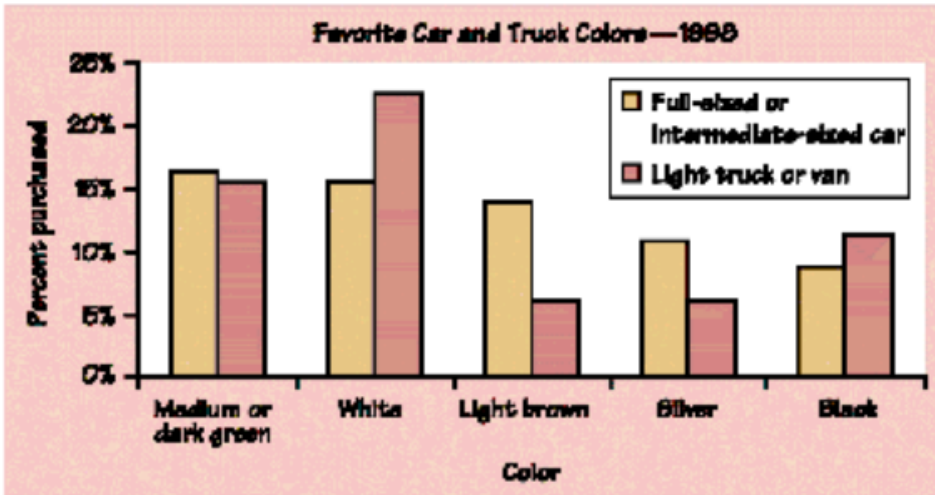
For these 100 items,
 what value is at the
 50th percentile?
 the 10th?
 What percentile is 38?



For these 40 items?

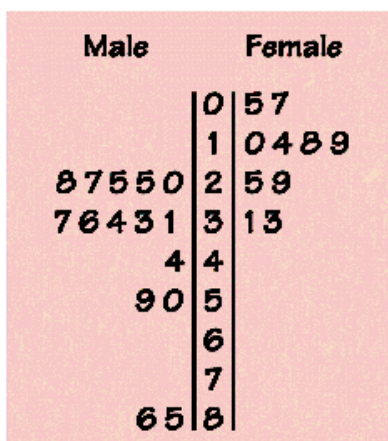
A **time plot** of a variable plots each observation against the time at which it was measured. Always mark the time scale on the horizontal axis and the variable of interest on the vertical axis. If there are not too many points, connecting the points by lines helps show the pattern of changes over time.

Comparing Distributions



A side-by-side bar graph is useful for comparing categorical data

Number of Cesarean sections performed by Male and Female Doctors



A back-to-back stemplot is an effective graphical display for comparing two fairly small quantitative data sets.

Key:

[2]5 means a female doctor performed 25 cesarian sections that year

0[5] means that a male doctor performed 50 cesarean sections that year.