

1 Variable vs. 2 Variable Data

2 variable

Study Hours	Regents Score
3	80
5	90
2	75
6	80
7	90
1	50
2	65
7	85
1	40
7	100

Colour of Bottles for Recycling

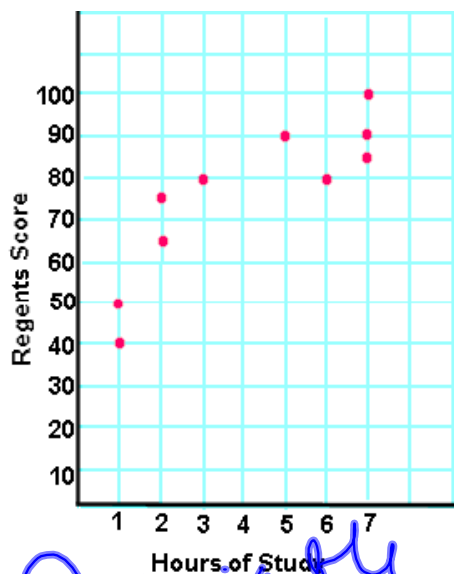
Clear
Green
Brown
Brown
Clear
Clear
Brown
Green
Clear
Green
Green
Clear
Green
Brown
Brown
Clear
Green
Green

One
Variable

One Variable Data: A set of data that describes one attribute per item in a sample

Two Variable Data: A set of data that describes two attributes per item in a sample

Which type of graph is used for one-variable data?





2 Variable

Bottles for Recycling	
Green	
Brown	
Clear	

One Variable

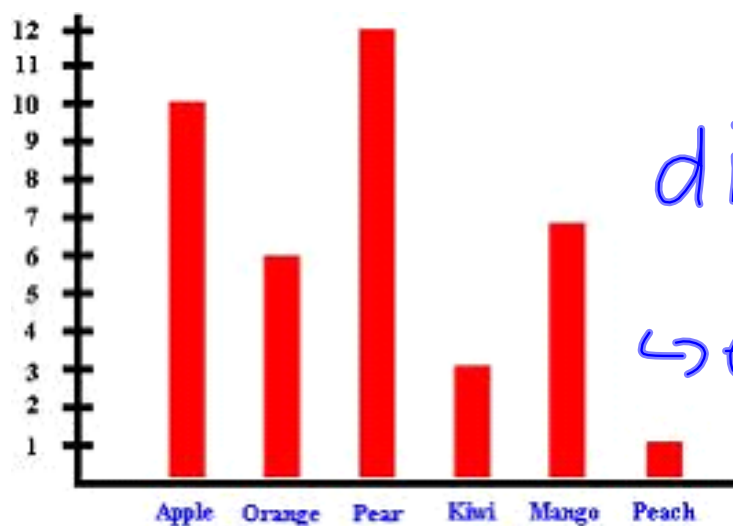
Pictograph:

Varieties of Apples in a food store	
Red Delicious	
Golden Delicious	
Red Rome	
McIntosh	
Jonathan	

 = 10 apples  = 5 apples



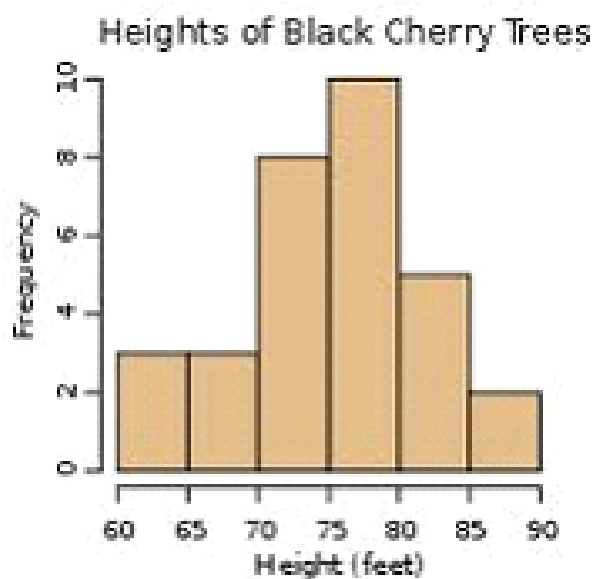
Bar Graph: A graph that displays data using horizontal or vertical bars whose lengths are proportional to the numbers they represent.



discrete
data
↳ e.g. class-
room
sizes.

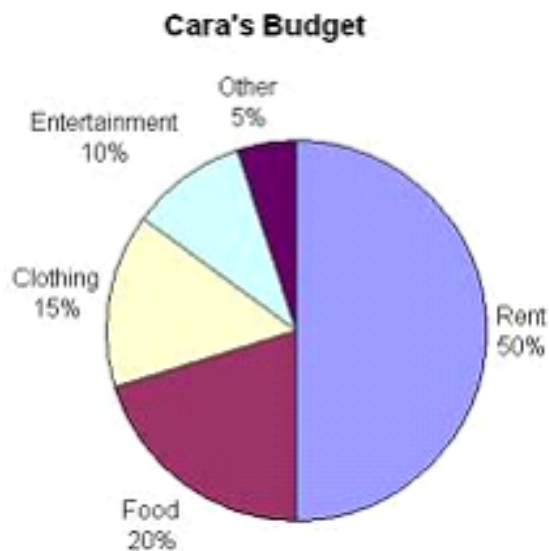
Categorical Data

Histogram: A histogram is a display of statistical information that uses rectangles to show the frequency of data items in successive numerical intervals of equal size.



Continuous
data

Circle Graph: A diagram that uses parts of a circle to display data, sometimes called a pie chart



Cara makes
\$2200 a
month.

How much does
she spend on rent?

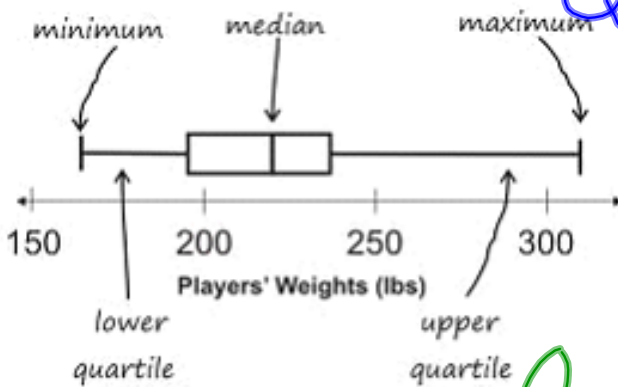
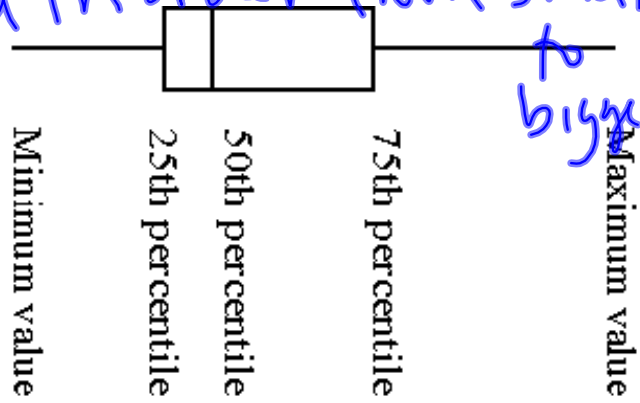
$$\begin{aligned}\text{Rent} &= 50\% \text{ of total} \\ &= 0.50 \times 2200 \\ &= \$1100\end{aligned}$$

$$\begin{aligned}\text{Clothing} &= 15\% \text{ of total} \\ &= 0.15 \times 2200 \\ &= \$330\end{aligned}$$

1a) Put the data in order from smallest to biggest

Box Plots:

1b) Calculate Q_1, Q_2, Q_3



Q_1, Q_2, Q_3

$Q_1: 9, 9, 10, 10, 11, 12, 13, 14, 2, 2, 2$
 Q_3

72 76 92 81 61 58 44 98 55 66 71 70 87

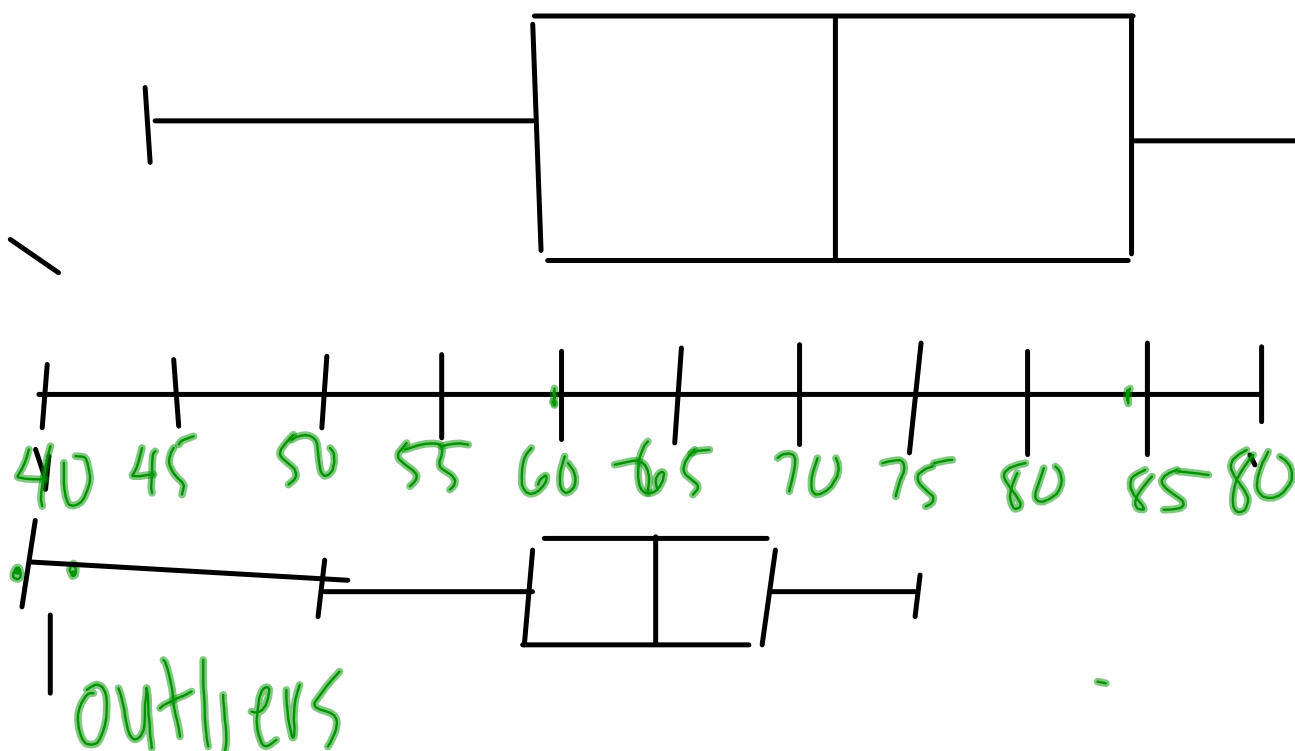
44, 55, 58, 61, 66, 70, 71, 72, 76, 81, 87, 92, 98

$Q_2 = 71$

$Q_1 = \frac{58 + 61}{2} = 59.5$

$Q_3 = \frac{81 + 87}{2} = 84$

$$Q_1 = 59.5 \quad Q_2 = 71 \quad Q_3 = 84$$



2 70 71 73 85 89

∴

Complete a stem-and-leaf plot for the following list of grades on a recei
73, 42, 67, 78, 99, 84, 91, 82, 86, 94

Stem and Leaf Plot

Stem-and-leaf plots are a method for showing the frequency with which certain classes of values occur.

For instance, suppose you have the following list of values: 12, 13, 21, 27, 33, 34, 35, 37, 40, 40, 41.

stem	leaf
1	2 3
2	1 7
3	3 4 5 7
4	0 0 1

← The #s in the leaf column need to be ordered from small to big

Test grades	
stem	leaf
4	2
5	
6	7
7	3 8
8	2 4 6
9	1 4 9

Homework:

pg 126 1, 2, 4

pg 133 #1, 2, 4, 5,

Make a box plot for the following data set and a stem and leaf plot for the following set of data
6, 4, 98, 20, 19, 7, 9, 12, 3, 2, 7, 11, 18, 23, 31, 38