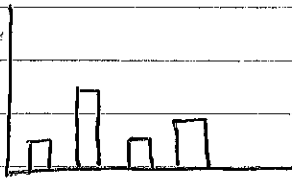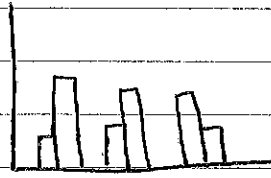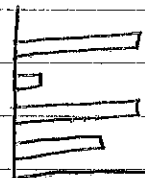## 2.1 Math 11Aw - notes

Bargraphs

note
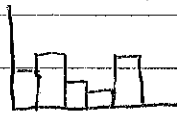there is always a space between bars

bar graph

double bar graph

horizontal bar graph.

range - subtract biggest number + smallest number.

2.2 Histograms

- like a bar graph but no space between bars.

frequency table - used to organize data so you can graph it

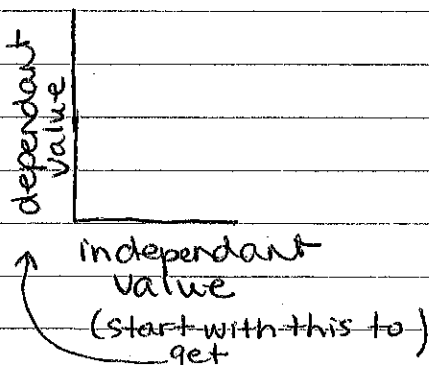given
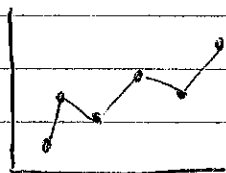
12 15 16 8
9 3 4 7 ⇒
10 15 18

	tally	
0 - 5	11	2
5 - 10	111	3
10 - 15	11111	4
15 - 20	11	2

dependant value

independant value
(start with this to)
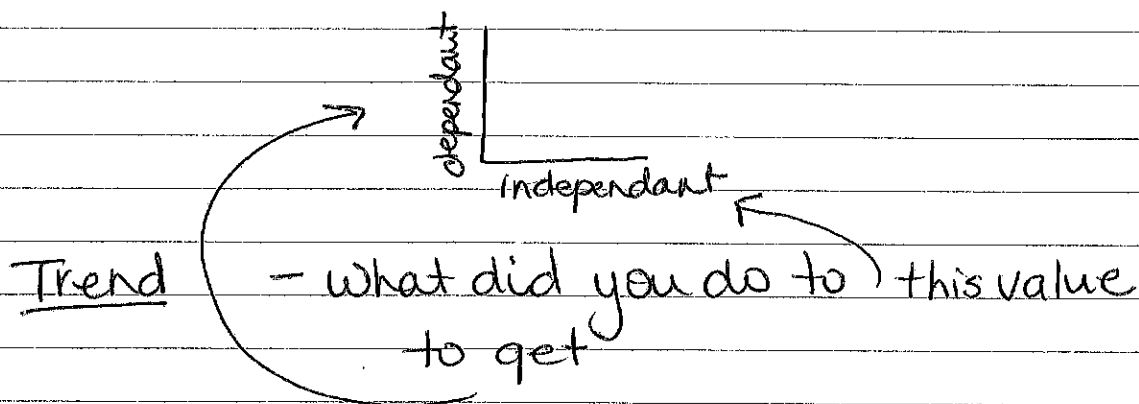get

[2.3] Math 11AW — notes

<u>Line Graphs</u> — connected dots of data
on graph paper

<u>trend</u> — ask, if the graph keeps going
what do you think will happen?
— how is one thing related to the other?

<u>Interpolate</u> — use the graph to find
the answer

<u>Extrapolate</u> — use the graph to find the
trend and use this information
to estimate result.

<u>Trend</u> — what did you do to this value
to get

2.5 Math 11 AW – notes

Circle graphs (aka pie chart)

To make a circle graph

① find the total
② divide each item by total
③ multiply by 360
④ graph using a protractor

ex

Fav. subject

Fav. Subject	
Foods	10
Science	8
English	5
PE	15
Socials	7
Math	25

① Find total

$$10 + 8 + 5 + 15 + 7 + 25$$
$$= 70$$

② ÷ by total   ③ × 360 (round to $\emptyset$ decimals)

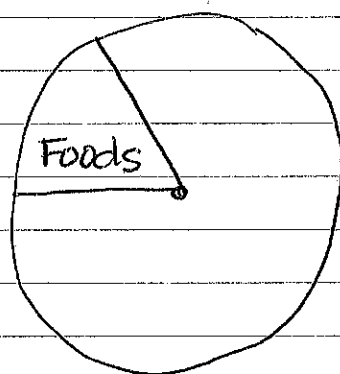|	÷ by total	× 360
Foods	$10 \div 70 = 0.1429$	$0.1429 \times 360 = 51$
Science	$8 \div 70 = 0.1143$	$0.1143 \times 360 = 41$
English	$5 \div 70 = 0.0714$	$0.0714 \times 360 = 26$
PE	$15 \div 70 = 0.2143$	$0.2143 \times 360 = 77$
Socials	$7 \div 70 = 0.1$	$0.1 \times 360 = 36$
Math	$25 \div 70 = 0.3571$	$0.3571 \times 360 = 129$

these are the degrees you will graph on the circle.
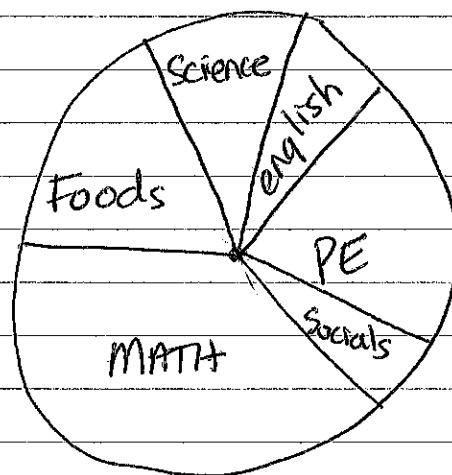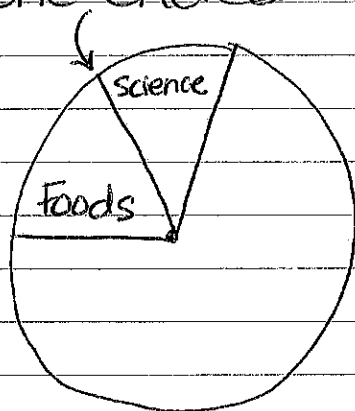
④ (a) Draw a circle & starting line   (b) use the protractor to put in 1st value.
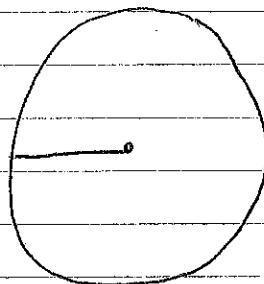
(c) * remember to label
the section every-time

Foods

(d) start the next value where the last
one ended & repeat the process
until all values are
in the circle.

Science

Foods

Science
english
Foods
PE
MATH
Socials

* if it doesnt look right in the end
recheck all sections with
the protractor
or recheck your math on the chart

2.6 Math 11AW - Notes

Graphs & Technology

① On a computer - open Excel (green X)

② Type in data into cells.

□ = cell   = column   = rows

③ type = into a cell for the math you
want to do.

 - at the top left hand side it
will say sum, average ....

sum - add
average = total ÷ # of items.

To find the sum:

= Sum( ) → a box will come up for
you to put in values.
click & hold to highlight the
values you want

On the computer - to do any math you
have to start with =

 - means subtract
 + means add
 * means multiply
 / means divide

To put your info in a graph

① click the graph button at the top
it looks like a histograph.

② click on select data & then
highlight the data you want
in your graph.

③ click on change chart type to
change the type of graph

2.7 Graphic Representations

Ways graphs can be mis-used

- not starting from 0 (on both x & y axis)

- bars can be drawn wider than others

- people can make assumptions
about the data (more, less, all same)