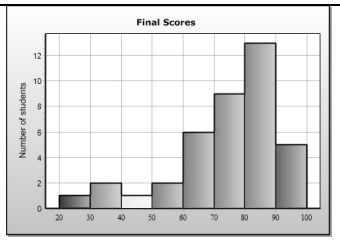
MBF 3C1 Name: _____

Collecting & Organizing One-Variable Data

One-variable data sets give measures of one attribute. They can be represented with:

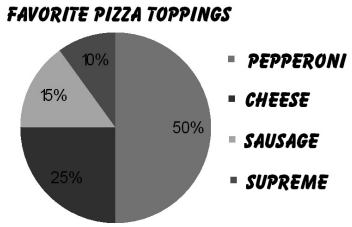
- **Favorite Color**

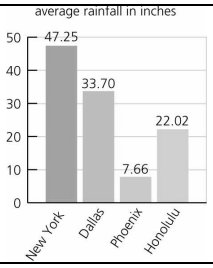
Color	Tally
red	𝍸
orange	III
yellow	II
green	III
blue	𝍸 I
indigo	II
violet	I

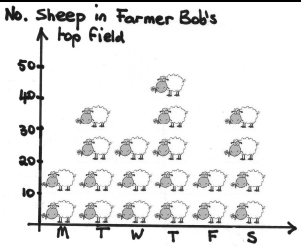
- 

-

Mark	Frequency
0 -10	2
10 -20	4
20 -30	7
30 -40	14
40 -50	23
50 -60	13
60 -70	8
70 -80	6
80 -90	2
90 -100	1
Total	80

- 

- 

- 

TYPE OF DATA	DEFINITION	EXAMPLE
Categorical Data	Data that is usually recorded as a _____ and not a _____. When recorded as a number, it is important to know what the number *represents* not its numerical value.	
Continuous Data	This is numerical (or quantitative) data where values can exist_____ recorded values, so _____ are allowed	Class interval / Tal 0 - 39 / I 40 - 79 / 𝍸 80 - 119 / 𝍸 𝍸
Discrete Data	This is numerical data, where values _____ exist between recorded values, so decimals are _____. There is a fixed number of possible values.	# of times / Tall 0 / |||| 1 / |||| | 2 / |||| || 3 / |||| || 4 / ||||

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Example 1

For each state the data type.

a. Number of mugs of coffee drank in a day. _____

b. Type of pet at home (eg. dog, cat, bird, reptile, etc.) _____

c. Number of pets at home. _____

d. Amount of coffee in mL drank in a day. _____

For *categorical* and *discrete data*, **classes** are used to sort the data in a frequency table.

Example 2

Organize the following data about favourite types of movies into a frequency table.

sci fi	romance	comedy	action	romance	drama
romance	sci fi	action	romance	comedy	sci fi
romance	action	sci fi	comedy	romance	action
action	comedy				

CLASS	TALLY	FREQUENCY
Total		

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For *continuous data*, **class intervals** are used to sort the data in a frequency table. When making frequency tables with class intervals,

- make sure intervals don't overlap by using decimals if necessary
- have a reasonable number of intervals, not too few nor too many

1. find the range (highest value – lowest value)
2. find interval length (divide range by 5 and 20 (the min and max interval length))

Example 3

Use a frequency table to organize the pulses of 30 people.

66	79	53	81	84	76	76	67	64	83
92	56	67	77	91	61	71	86	73	87
71	67	71	81	86	62	77	91	72	68

range = 92 - 53
= 39

39 ÷ 5 = 7.8 and 39 ÷ 20 = 1.9, so let the interval be 5

INTERVAL	TALLY	FREQUENCY
Total		