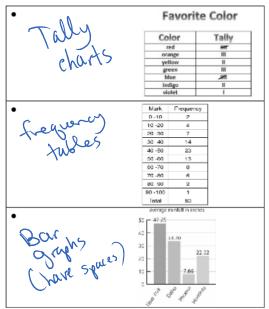
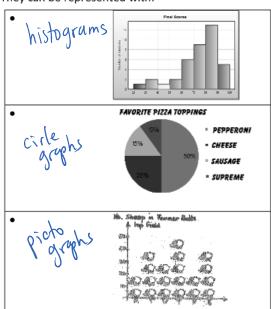
# MBF 3C1 Collecting & Organizing One-Variable Data

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





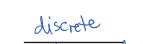
TYPE OF DATA	DEFINITION		<b>EXAMPL</b>	E
			Categorical d	ata
	Data that is usually recorded as a and not a	(		nber :oys
Categorical Data	When recorded as a number, it is important		rown 2	
categorical Data		100	ellow 5	
	to know what the number represents not its		ed 4 Jue 3	
	numerical value.		reen 6	
		Class interval	Tally	Frequency
	This is numerical (or quantitative) data	0 - 39	1	1
	where values can exist between	40 - 79 80 - 119	# # 1	5
Continuous Data	Where values can exist 700 to	120 - 159	+#+ III	12
	recorded values, so <u>dlcmals</u> are	160 - 199	100	4
	allowed	200 - 239	1	1
			Sum =	= 31
		# of times	Tally I	Frequency $(f_i)$
		0		5
Discrete Data	This is numerical data, where values	1	iiii i	6
		2		11
	can not exist between recorded	3		7
	values, so decimals are	4	11111	9
	not allowed. There is a	6		1
		7		Ô
	fixed number of possible values.	8	1	1

## MBF 3C1

### 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.



Name:

discrete

continuous

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
Action	JH	5
Cornedy	III)	Ч
brama	1,	1
Drama Romanie	JHT I	6
Sci Fi	11/\	Ÿ
Total		2.0

_	_		
NΛ	BF	261	
IVI	DΓ	201	

Name:		

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.

INTERVAL	TALLY	FREQUENCY
50-54		
55-59		1
60 - 64		3
65 -69		5
70-74	Ht.	5
75~ 79	HH	5
80-84	11//	Ч
85-89	111	3
90-94	III	3
Total		20