Data Management Study Guide

Vocabulary

Census vs Sample

Census: The whole population.

Sample: Part of the population

Bias vs Reliable vs Valid Results

Bias: Unfair or invalid data that lead to a skewed results.

Reliable: Duplicated to get same results

Valid: Represents an entire population.

Inference

To use your own knowledge into a statement. Looking beyond the data. What do YOU conclude from the results.

Central Tendency

Mean, Median, Mode, Outlier

Mean: Average (Add all data and divide by how many there are)

Median: Middle Number (list all data least to greatest and meet in middle. If two numbers left: add up and divide by 2)

Mode: Most Frequent (look at data and identify duplicates)

Outlier: Most extreme on either side that skews your data.

Organize Data

Tally: A number chart that you count data

Favourite part of Christmas	Number of people
Decorating the tree	𝍸 𝍸 ||||
Opening presents	𝍸 𝍸 𝍸 |
Playing in snow	||||
Carols and music	|||
Time with friends and family	𝍸 |
Christmas food	||

Frequency Chart: Convert the tally into recordable numbers

Type of Pet	Tally	Frequency
Dog	𝍸 𝍸 ||	12
Cat	𝍸 ||	7
Goldfish	𝍸 |	6
Budgie	|||	3
Hamster	||	2
Lizard	|	1
Snake	|	1
Rabbit	|||	3

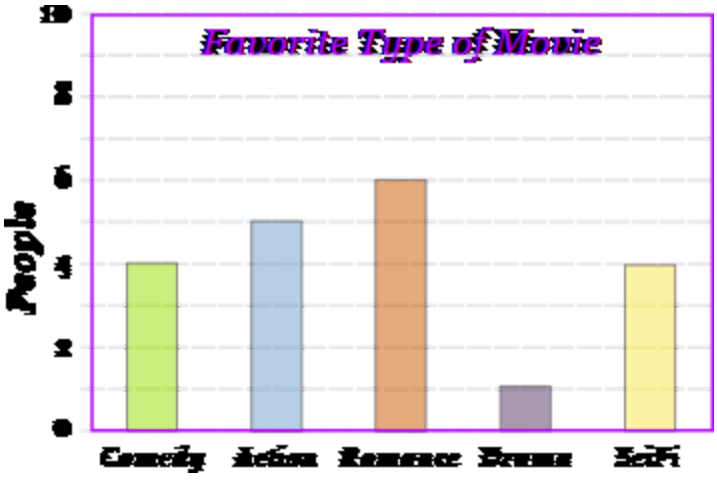
Stem & Leaf: Organize data using base 10 or groups.

stem	leaf
0	1, 1, 2, 2, 3, 4, 4, 4, 4, 5, 8
1	0, 0, 0, 1, 1, 3, 7, 9
2	5, 5, 7, 7, 8, 8, 9, 9
3	0, 1, 1, 1, 2, 2, 2, 4, 5
4	0, 4, 8, 9
5	2, 6, 7, 7, 8
6	3, 6

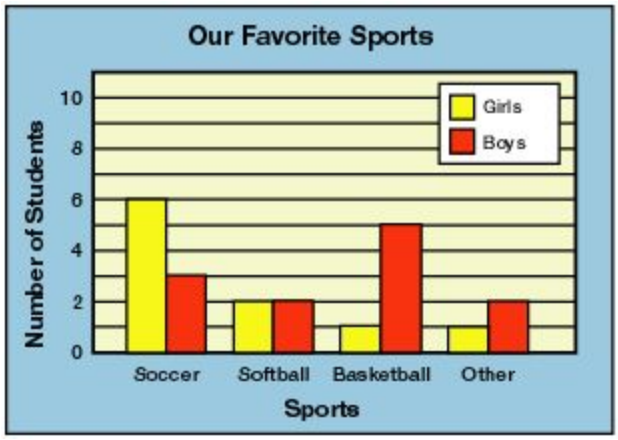
Key: 6|3 = 63 years old

Types of Graphs

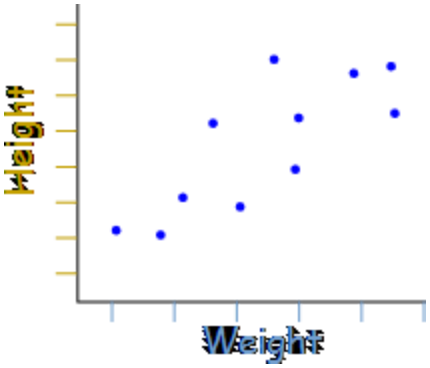
1)Bar Graph



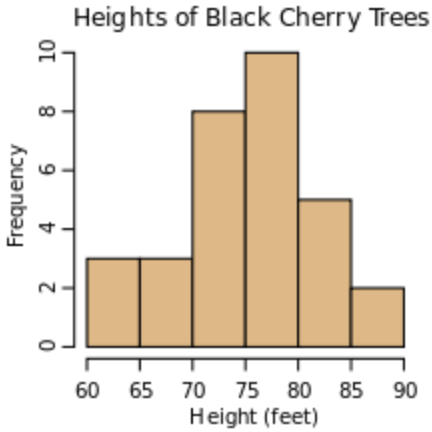
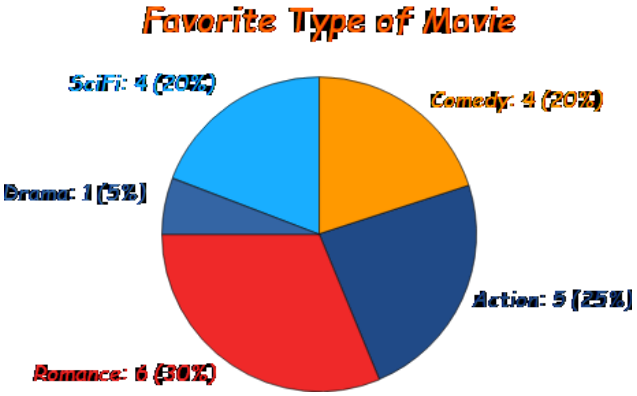
2) Double bar Graph



3)Scatterplot



4) Histogram



5) Circle Graph