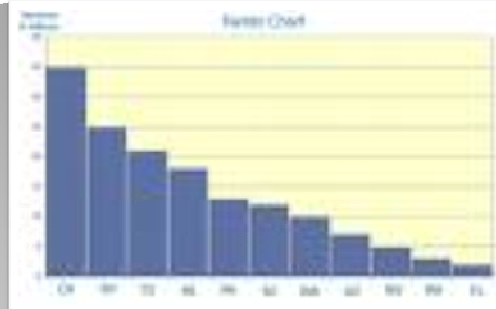


## Other Types of Graphs

Section 2.4

- Represent data using Pareto charts, time series graphs, and pie graphs
- Draw and interpret a stem & leaf plot

**Objectives**



Used to represent a frequency distribution for a categorical variable and the frequencies are displayed by the heights of the contiguous vertical bars, which are arranged in order from highest to lowest.

### What is a Pareto Chart?

- STEP 1: Draw the x- and y-axes
- STEP 2: Label the x-axis using the qualitative categories (highest frequency to lowest frequency)
- STEP 3: Label the y-axis using an appropriate scale that encompasses the high and low frequencies
- STEP 4: Draw the contiguous vertical bars

### How do I create a Pareto Chart from a categorical frequency distribution?

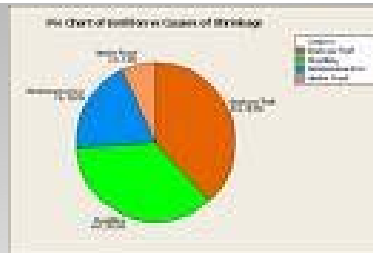
Nursing	Business Admin	Education
Computer Info Systems	Political Science	Art
General Studies	Nursing	Education
Education	Psychology	Business Admin
Psychology	Business Admin	General Studies
General Studies	General Studies	History
History	History	General Studies
Education	Computer Info Systems	Nursing
Education	General Studies	Education
History		

**Example**

Class (Major)	Frequency	Percentage
Art	1	3.6%
Business Administration	3	10.7%
Computer Info Systems	2	7.1%
Education	6	21.4%
General Studies	6	21.4%
History	4	14.3%
Nursing	3	10.7%
Political Science	1	3.6%
Psychology	2	7.1%
TOTAL	28	100%

- Time Series Graph represents data that occur over a specific period of time
- Line graph
- When analyzing a time series graph, look for a trend or pattern that occurs over time

## Other Types of Graphs



- Pie Graph is a circle that is divided into sections or wedges according to the percentage of frequencies in each category of the distribution.
- Show relationship of the parts to the whole

## Other Types of Graphs

- Stem & Leaf Plot
  - Method for organizing data
  - Combination of sorting and graphing
  - Original Data is retained unlike with a grouped frequency distribution
- Is a data plot that uses part of the data value as the “stem” (usually digit in highest place value position) and part of the data as the “leaf” to form groups or classes
- When analyzing a stem & leaf plot, look for peaks and gaps in the distribution. Consider the shape of the distribution

## Other Types of Graphs

- STEP 1: Arrange data in order (not required, but makes things easier)
- STEP 2: Separate the data according to the first digit (this is the “stem”)
- STEP 3: Set up “table” with “stem” values in left-hand column and “leaf” in right hand column in ascending order

## How do I create a stem and leaf plot from raw data?

39	40	41	43	50	59	59	61	63	64
65	66	66	68	70	70	70	71	73	73
75	76	77	78	79	79	80	80	80	80
81	81	82	83	84	84	84	84	85	86
86	87	88	89	89	90	90	90	90	91
91	92	94	94	94	94	95	96	96	98
99	100	100	100	100					

**Exam Scores from a Randomly  
Selected MATH 1111 Exam SP 08**