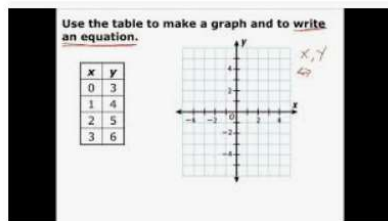


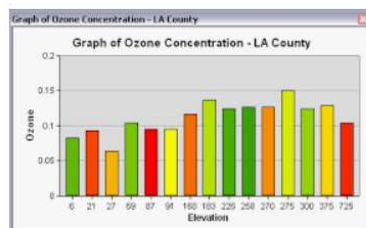
Quantitative Skills & Reasoning – Math 1001

**Dr. Bob Brown, Jr.
Dean Emeritus
Professor Emeritus
East Georgia State College
Data Analysis Unit
Tables & Graphs pp 247-274 in textbook**





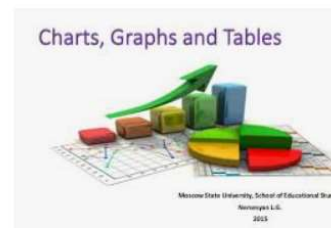
Lesson 3-5 Equations, tables, and ...
youtube.com



Creating a graph from a table—Help ...
desktop.arcgis.com



JpGraph - Most powerful PHP-drive...
jgraph.net



Charts, Graphs and Tables
slideshare.net

Kind of flower	Number of flowers		Total
	Meryl	Sheryl	
Rose	1	3	4
Tulip	5	0	5
Lily	5	4	9
Orchid	4	4	8
Forget-me-not	9	15	24
Total	24	26	50

Table and Bar Graphs - Home Campus
my.homecampus.com.sg

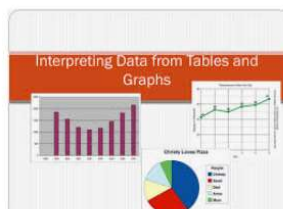
Average Radius of Trees in a Forest

Age of Trees (years)	Average Radius (cm)
1	2.2
2	2.6
3	
4	
5	
6	4.4

Plant Growth in Soils with Different pH Values

Plant Group	pH of Soil	Average Plant Growth (cm)
1	6.0	25.4
2	6.2	33.0
3	6.4	50.8
4	6.6	53.3
5	6.8	53.3
6	7.0	30.5
7	7.2	22.9

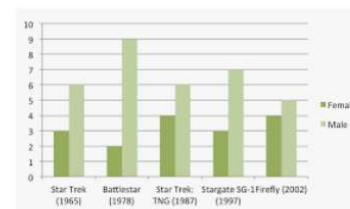
Data Tables and Graphs - Science: Physics
physicsfun101.weebly.com



Interpreting Data from Tables and Gr...
studylib.net



Graphs - INGL 4255: Professional Editing
ingl4255.wordpress.com



Figures and Charts - The Writing Center
writingcenter.unc.edu

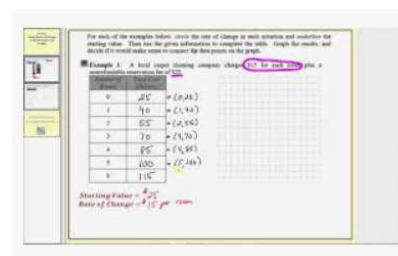
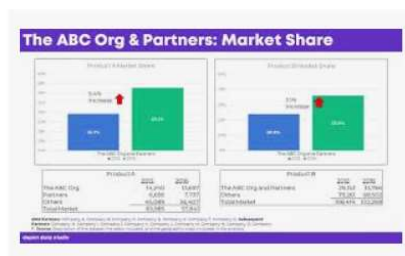
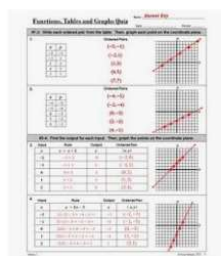
Saturday AM Westwood Bus Schedule (Title)

7:18	7:28	7:33	7:38	8:10
8:01	8:11	8:17	8:21	8:55
9:31	9:43	9:47	9:51	10:25
10:16	10:26	10:32	10:36	11:11
11:01	11:12	11:17	11:21	11:56
12:31	12:43	12:47	12:51	1:26

Stations Served (Label)

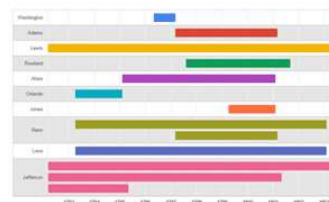
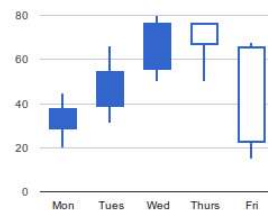
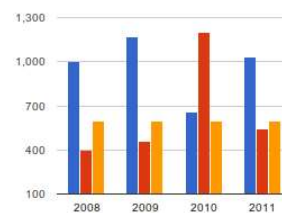
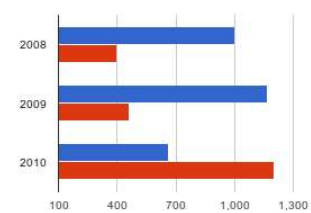
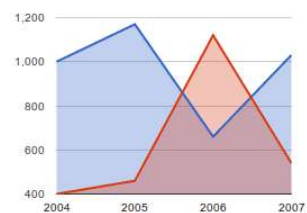
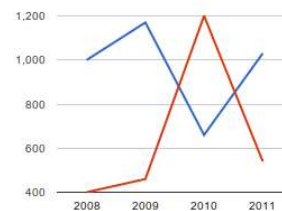
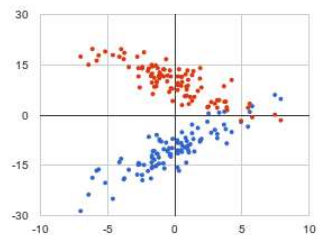
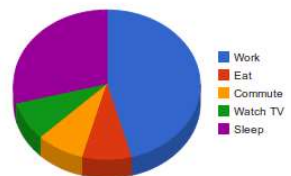
Great Mall May-Rich May-Green May-Warren Center Square

Vocabulary Drill - T. Charts, Tables ...
tutor_me.tripod.com

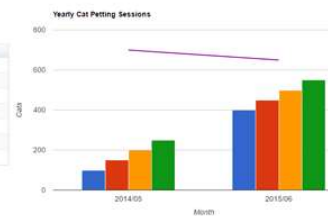


Kind of flower	Number of flowers
Rose	1
Tulip	5
Lily	5
Orchid	4
Forget-me-not	9
Total	24





Name	Salary	Full Time Employee
1 Mike	\$10,000	✓
2 Jim	\$8,000	✗
3 Alice	\$12,500	✓
4 Bob	\$7,000	✓
5 Dan	\$5,800	✗
6 Roger	\$10,200	✓
7 Maria	\$7,300	✗



There are several ways that we can organize data:

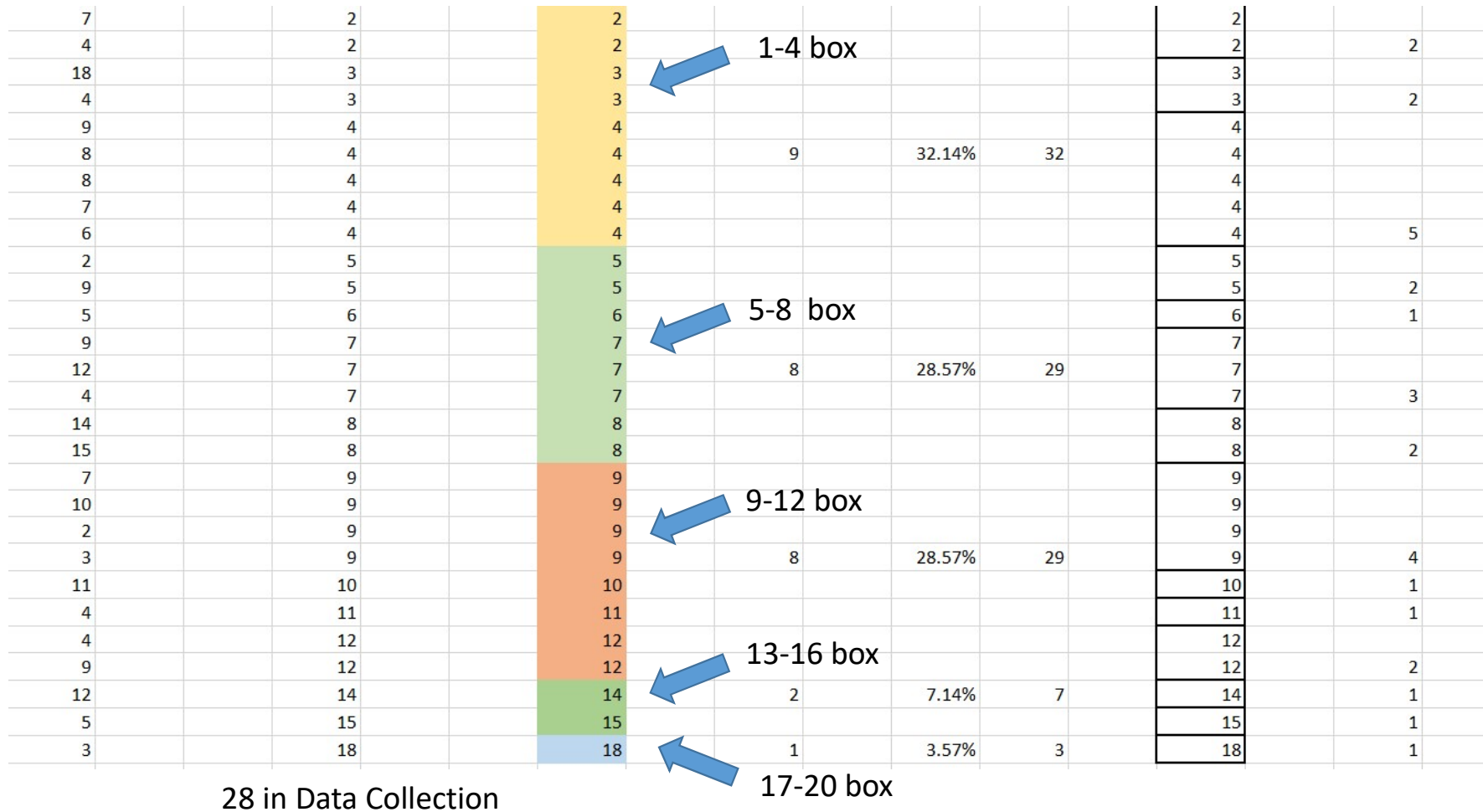
- Frequency and Relative Frequency Tables
- Bar graph and Pareto charts
- Pie chart
- Histograms
- Line Chart

We'll create each of these charts for the following set of data:

Gallons of gasoline purchased by 28 drivers:

7, 4, 18, 4, 9, 8, 8, 7, 6, 2, 9, 5, 9, 12, 4, 14, 15, 7, 10, 2, 3, 11, 4, 4, 9, 12, 5, 3

Sorting The Data Out

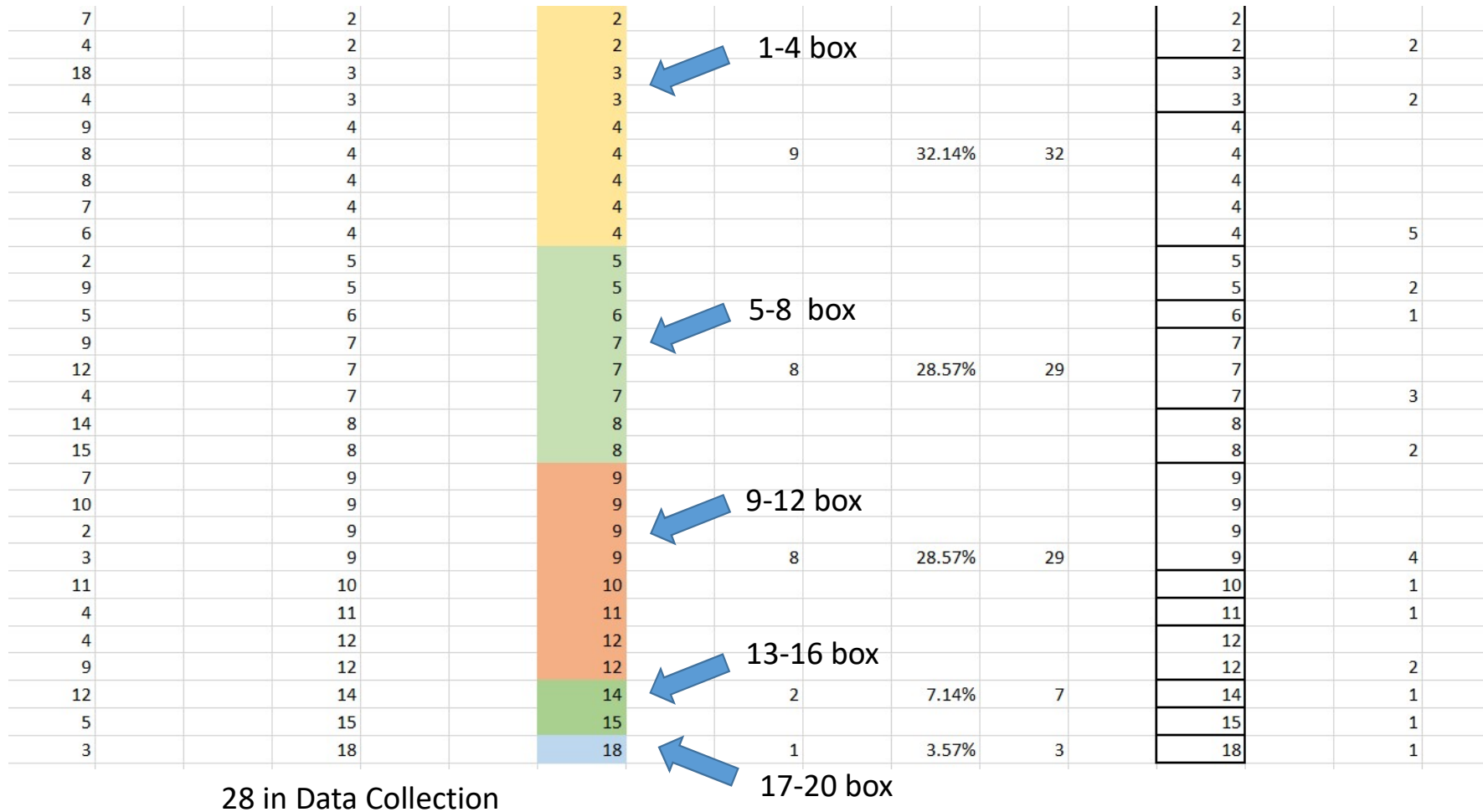


Frequency and Relative Frequency Tables

A **frequency table** is a table with two columns. One column lists the categories, and another for the frequencies with which the items in the categories occur (how many items fit into each category).

A **relative frequency table** is a frequency table with a column of fractions or percent describing the relative frequency of each category.

Sorting The Data Out



Create a relative frequency table:

Gasoline Used	Frequency (f)	Relative Frequency (f/n)	Cumulative Frequency
1-4	9	9/28	9
5-8	8	2/7	17
9-12	8	2/7	25
13-16	2	1/14	27
17-20	1	1/28	28

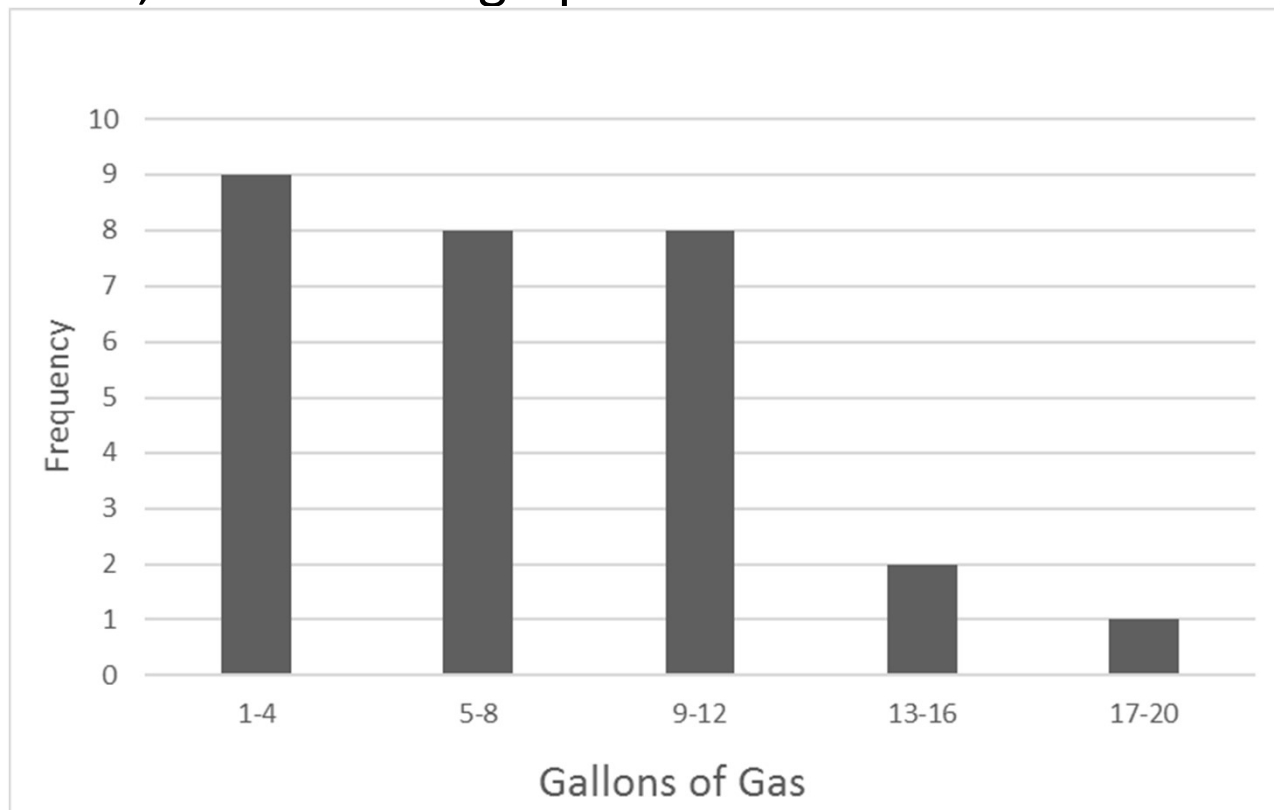
Bar Graphs and Pareto Charts

A **bar graph** is a graph that displays a bar for each category with the length of each bar indicating the frequency of that category.

A **Pareto Chart** is a bar graph ordered from highest to lowest frequency.

Bar Graphs and Pareto Charts (Example)

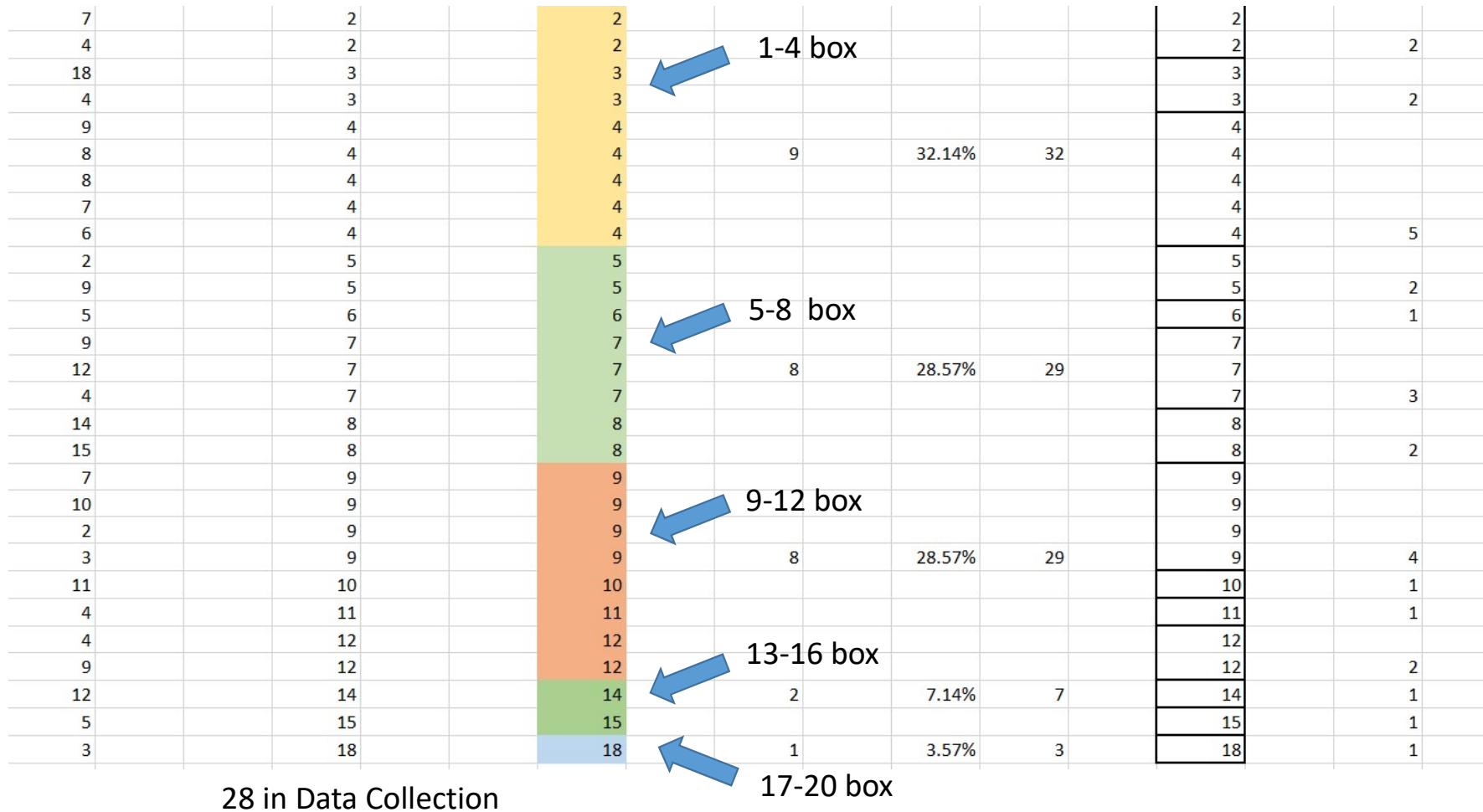
For our dataset, create a bar graph and Pareto Chart:



Pie Charts

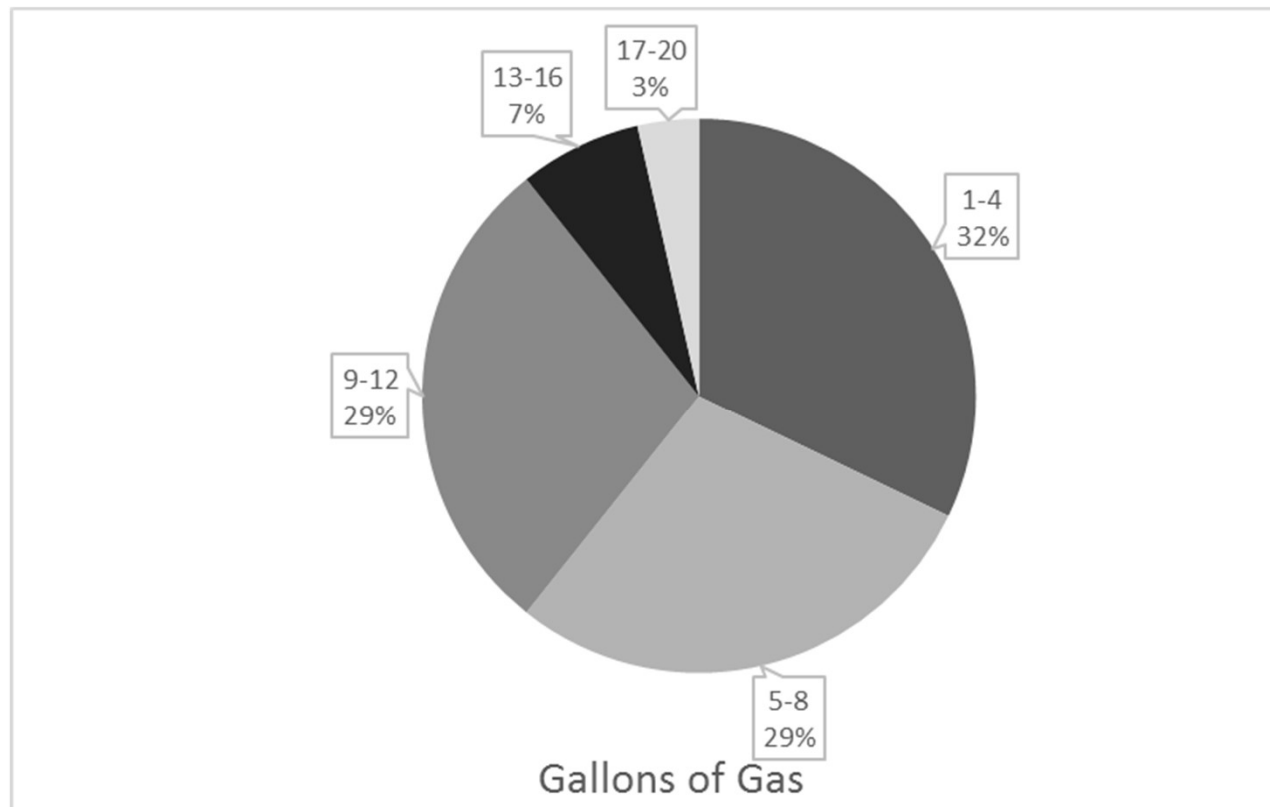
A **pie chart** is a circle with wedges cut of varying sizes marked out like slices of pie or pizza. The relative sizes of the wedges correspond to the relative frequencies of the categories.

Sorting The Data Out



Pie Charts (Example)

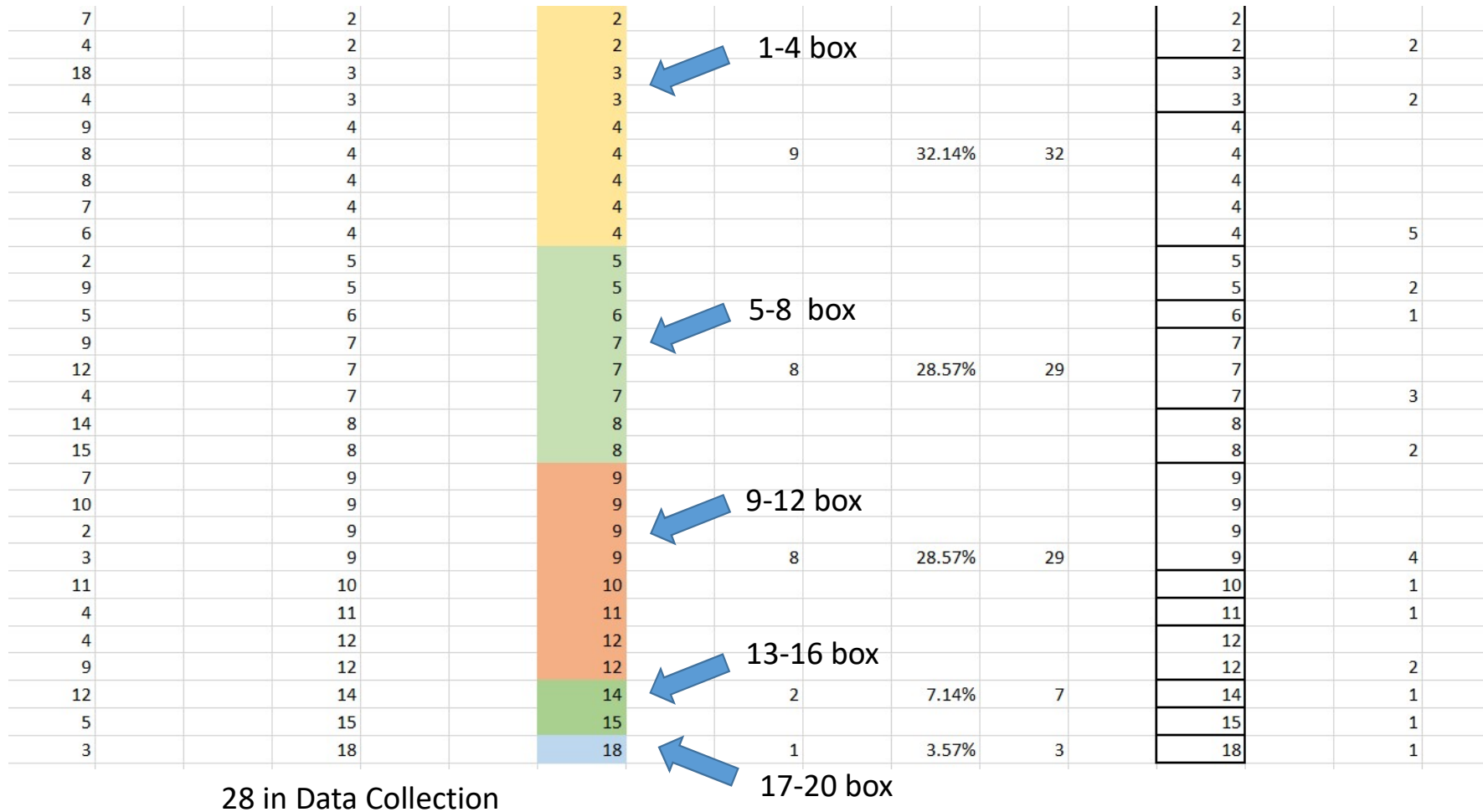
For our dataset, create a bar graph and Pie Chart:



Histograms

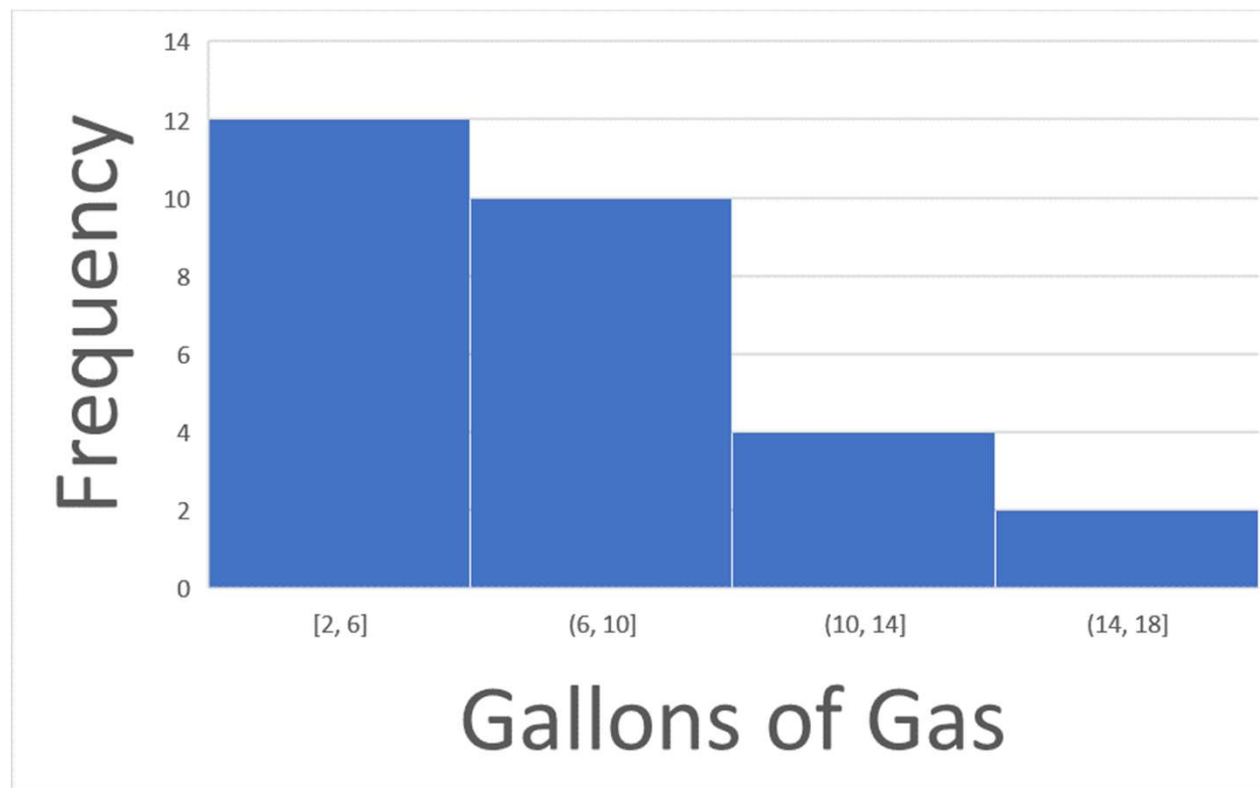
A **histogram** is graph that displays a rectangle for each numerical class interval with the height of each rectangle indicating the frequency of values in the interval. A histogram is similar to a bar graph, but the horizontal axis is a number line. All class intervals must be an equal width.

Sorting The Data Out



Histogram(Example)

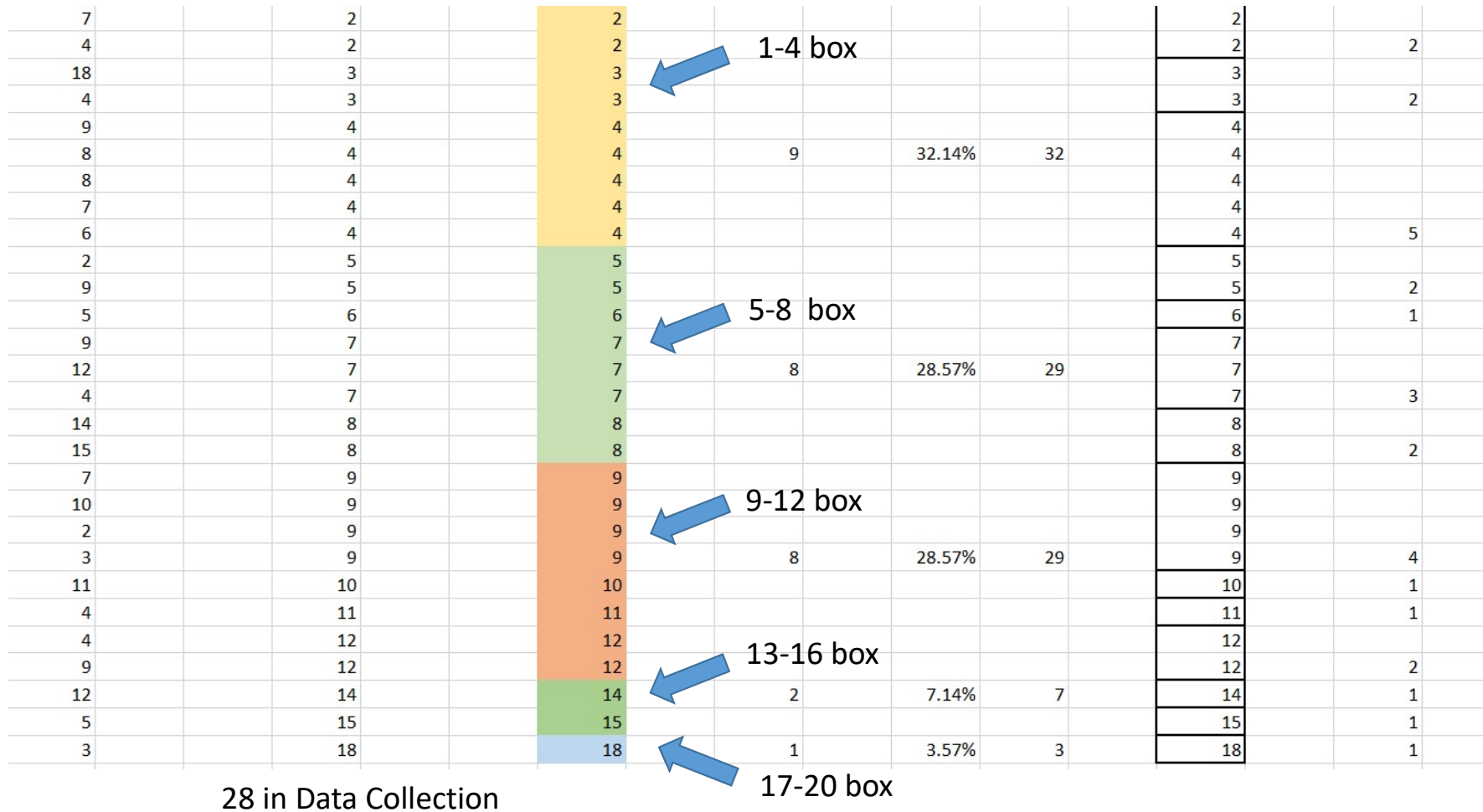
For our dataset, create a histogram:



Line Chart

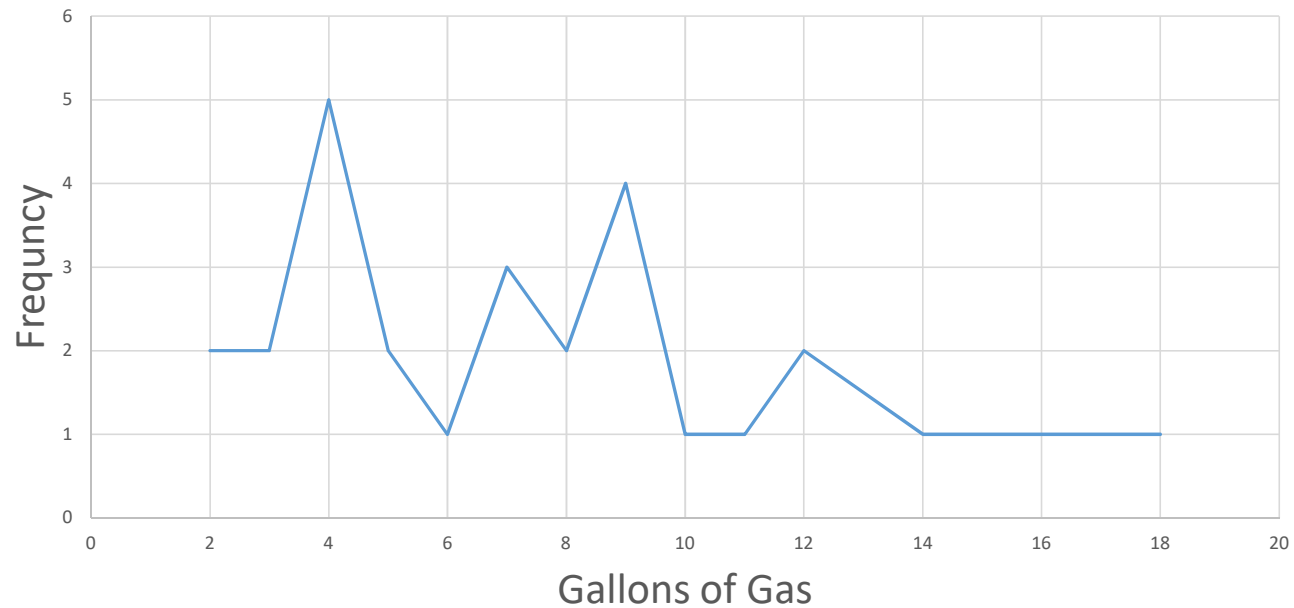
A **line chart** shows each category as a point connected with a line.

Sorting The Data Out



Line Chart (Example)

For our dataset, create a line chart:



Cause of Dissatisfaction	Count
Overall Taste	12
Serving Size	5
Food Presentation	25
Quality of Service	24
Promptness	5
Affordability	6
Cleanliness	15
Store Ambience	8

Pareto Exercise Chart Food Serving Survey

Cause of Dissatisfaction	Count
Food Presentation	25
Quality of Service	24
Cleanliness	15
Overall Taste	12
Store Ambience	8
Affordability	6
Serving Size	5
Promptness	5

Pareto Exercise Chart Food Serving Survey Step 1 Rank Failures

