

# Charts

- Bars
- Dots
- Other

# Histograms

- **Histogram:** A bar chart that depicts frequency distribution table.

Units	Frequency	Rel Freq	Cum Freq	Cum Rel Fr.
0 – 4	130	0.260	130	0.260
5 – 9	68	0.136	198	0.396
10 – 14	86	0.172	284	0.568
15 – 19	179	0.358	463	0.926
20 – 24	37	0.074	500	1.000
<b>Total</b>	<b>500</b>			

# Relative Frequency Histogram

- **Relative Frequency Histogram:** A bar chart that depicts relative frequency distribution table.

Units	Frequency	Rel Freq	Cum Freq	Cum Rel Fr.
0 – 4	130	0.260	130	0.260
5 – 9	68	0.136	198	0.396
10 – 14	86	0.172	284	0.568
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20 – 24	37	0.074	500	1.000
<b>Total</b>	<b>500</b>			

# Cumulative Frequency Histogram

- **Cumulative Frequency Histogram:** A bar chart that depicts the cumulative frequency distribution table.

Units	Frequency	Rel Freq	Cum Freq	Cum Rel Fr.
0 – 4	130	0.260	130	0.260
5 – 9	68	0.136	198	0.396
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# Frequency Polygon

- **Frequency Polygon:** A connected dot plot that depicts the frequency distribution table using the midpoints. Drop the polygon to 0 on the left and right ends.

Units	Frequency	Rel Freq	Cum Freq	Cum Rel Fr.
0 – 4	130	0.260	130	0.260
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# Stem-and-Leaf Plot

- **Stem-and-Leaf Plot:** A chart in two parts: the large units and small units. The large units are on the left and all the small units digits are placed horizontally on the right to form a number bar.

## **Exam Scores:**

24,35,42,55,59,63,68,72,75,76,77,77,77,82,85,85,85,86,  
86,88,88,89,90,90,90,93,93,95,95,96,97,97,98,98,99,99

# Pareto Chart

- **Pareto Chart:** a bar graph for qualitative data that is arranged in decreasing order.

<b>Favorite Color</b>	<b>Frequency</b>
Red	60
Blue	50
Green	10

# Pie Chart

- **Pie Chart:** A circle graph such that each slice's angle is proportional to its category's frequency.

$$\text{Angle} = \text{Relative Frequency} \times 360^\circ$$

<b>Ethnicity</b>	<b>Frequency</b>
White	6000
Hispanic	2000
Other	1000

# Scatterplots

- **Scatterplot:** A plot that exhibits points with coordinates  $(x,y)$  used to determine a relationship between two quantitative variables.

