Types of Graphs – Reference Sheet
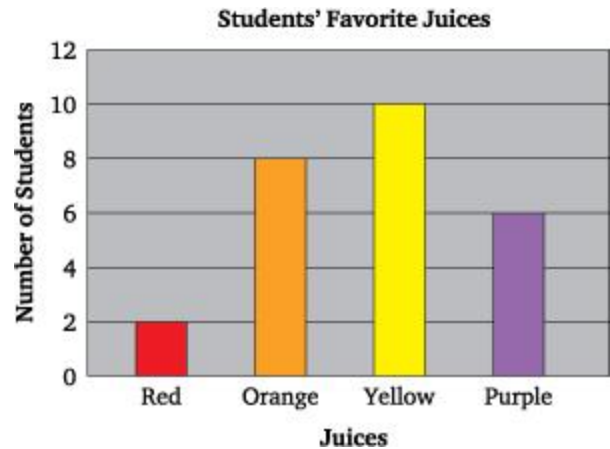
Bar Graph

Include:
- Title
- Y-axis (up-down) and X-axis (side-to-side) labels
- Axis titles
- Bars

Purpose: to compare quantities (amounts) that are in different categories.
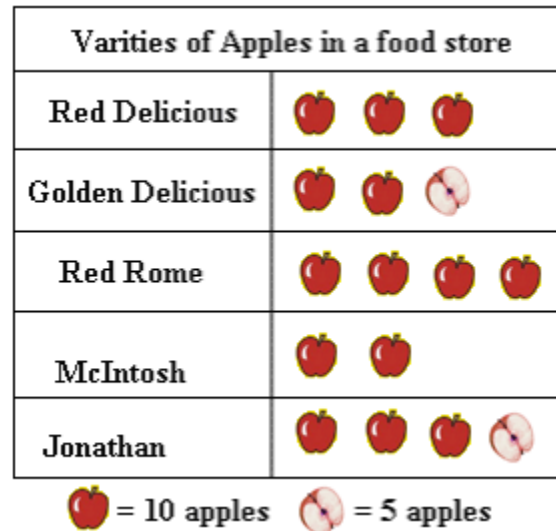*Note: can be vertical, horizontal or stacked (multiple sets of data).

Students' Favorite Juices

Pictograph

Include:
- Title
- Category labels
- Picture that fits with the data
- Legend

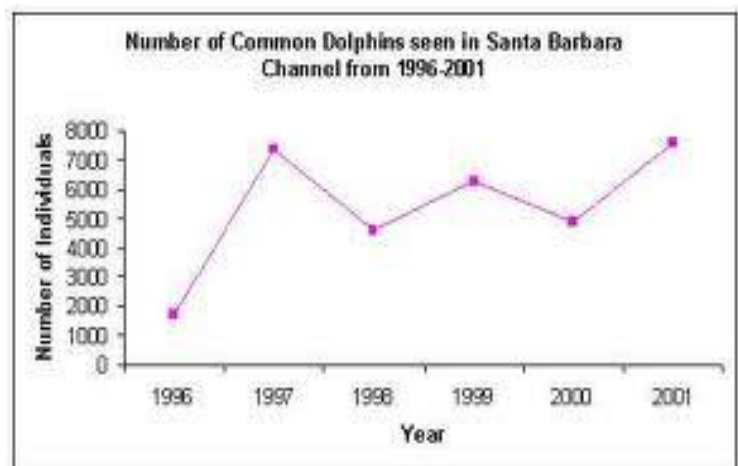**Purpose:** uses pictures to represent a certain amount of data.

Varities of Apples in a food store

Red Delicious	🍎 🍎 🍎
Golden Delicious	🍎 🍎 🍎
Red Rome	🍎 🍎 🍎 🍎
McIntosh	🍎 🍎
Jonathan	🍎 🍎 🍎 🍎

🍎 = 10 apples   🍎 = 5 apples

Line Graph

Include:
- Title
- Y-axis (up-down) and X-axis (side-to-side) labels
- Axis titles
- Points
- Lines to connect points

Purpose: shows changes in data or patterns (often over time). Line graphs can compare multiple data sets on one graph easily.

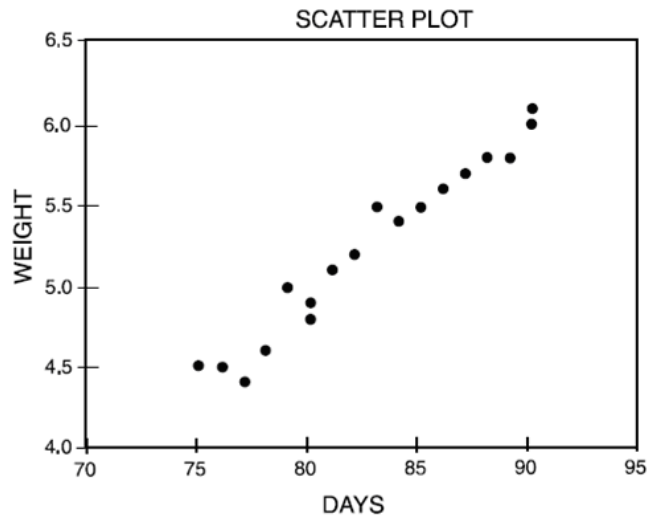Number of Common Dolphins seen in Santa Barbara Channel from 1996-2001

Scatter Plot

Include:
- Title
- Y-axis (up-down) and X-axis (side-to-side) labels
- Axis titles
- Points

Purpose: show how much one variable is affected by another.

Stem-and-Leaf Plot

Include:
- Title
- Stem column – for the tens digits
- Leaf column – for the ones digits
- T-chart to separate data

Purpose: helps to organize large amounts of data for analysis.

Quiz Scores

Stem	Leaf
4	0, 9
5	6, 8, 9
6	1, 4, 7
7	3, 5, 6, 8
8	0, 5, 7, 8
9	2, 6

Circle Graph

Include:
- Title
- Circle to break into pieces
- Data calculated into degrees (for building graph)
- Data in percentages for labels
- Legend

Purpose: represents data as part of a whole (100%).

People who like different fruits

□ Apples □ Cherries □ Grapes
□ Others □ Bananas □ Dates