

Graphing

Graphing Skills

Graph: is a visual display of information.

T Title	Describes your graph
A Axis	Independent= x , dependent = y
I Interval	Count by 1's, 2's, 5's, 10's...
L Label	Axis name and units
S Scale	Find the min-max values

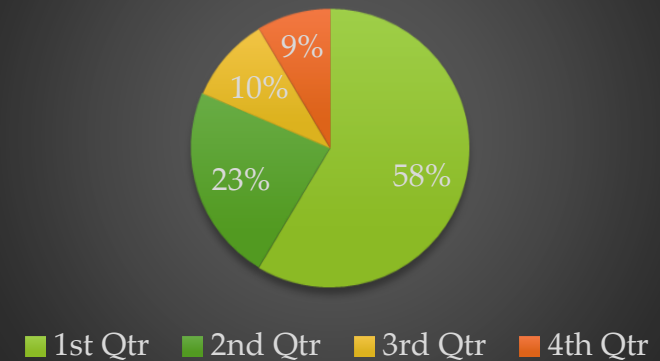
(Please remember TAILS we will be using it all semester long!)

Graphing Skills

Circle Graph

(pie chart) Used to show how a fixed quantity is broken down into parts.

Sales This Year



Line Graph

Shows trends or how data changes over time.

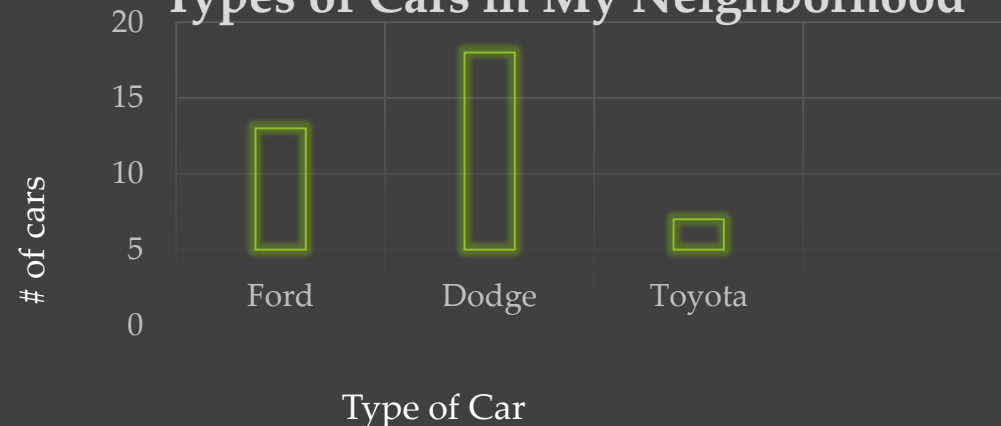
Number of Birds that Flew by My Window During the Week



Bar Graph

Useful for comparing information collected by counting.

Types of Cars in My Neighborhood



Pie Graph

- ▶ On the board, put a tally mark on your favorite pie flavor choice that is listed
- ▶ Make sure the total marks add up to the student population tally
- ▶ Count how many tally marks there are for each pie type;
 - ▶ Create a pie chart showing the % for each flavor,
 - ▶ Add the # of tally marks for each flavor and other labels
 - ▶ Color the pie chart according to its flavor

Bar Graph

- ▶ On the board, place a tally mark next to the month you were born in
 - ▶ Make sure the tally numbers match the student population number
 - ▶ Count the number of birthdays for each month
 - ▶ Use TAILS to create a bar graph for this information
 - ▶ Add color to each bar.

Types of pie

- ▶ Lemon Meringue – Yellow
- ▶ Coconut cream- White
- ▶ Apple- Green
- ▶ Cherry- Red
- ▶ Peach- Pink
- ▶ Blueberry- Blue
- ▶ Black/ Marion / Boysenberry - Purple
- ▶ Pumpkin - Orange

Line Graph

- ▶ Use the data table for the '2016 Average Temperature' in Chino Hills, CA
- ▶ Graph the monthly min and max temperatures.
- ▶ Use two different colors:
 - ▶ Min = Blue
 - ▶ Max = Red
- ▶ Remember TAILS!

Month	Temp (min)	Temp (max)
January	20°F	85°F
February	32°F	88°F
March	30°F	97°F
April	39°F	97°F
May	42°F	103°F
June	47°F	109°F
July	53°F	113°F
August	54°F	109°F
September	48°F	112°F
October	40°F	103°F
November	32°F	95°F
December	26°F	86°F

↓ A biologist studying ponds in Alaska wants to determine if the temperature of a pond affects the length of the fish in that pond. He traps and measures fish in each pond, gathering the following data:

Pond	Pond A	Pond B	Pond C	Pond D
Temperature	10 °C	14 °C	18 °C	20 °C
Fish Size	4 cm, 8 cm, 14 cm, 10 cm, 6 cm, 2 cm	6 cm, 8 cm, 10 cm, 10 cm, 12 cm	5 cm, 8 cm, 12 cm, 14 cm, 10 cm, 20 cm	8 cm, 10 cm, 10 cm, 14 cm, 24 cm

1. Choose a way to represent this data using either a bar graph or a scatter plot. (Don't Forget TAILS)
2. Justify why you chose that graph
3. Then write a summary of the data to answer the question as to whether temperature is related to the size of fish.