# 12.1 Line Plots (6.SP.4 and 6.SP.5b)

Key

**Vocabulary**

Line Plot (or Dot Plot) – a visual display of a distribution of data values where each data value is shown as a dot or "x" above a number line.

**Steps to making a Line Plot:**

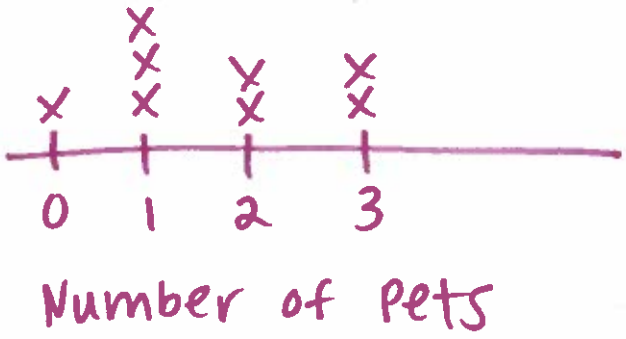
1. Draw and label a number line.
2. Place as many "x" above each number as there are responses for that number.
3. Write a title.
4. Describe the data. Make sure to include measures of center and variation.

**Guided Practice:**

1. Jasmine asked her class how many pets they had. The results are shown in the table. Make a line for the set of data. Describe the data. Include the measures of center and variability.

| Number of Pets |
|---|
| 0 1 1 1 2 2 3 0 |

0 | 1 1 | 2 2 | 3 3




**Measures of Center**

Mean:

#1 0+1+1+1+2+2+3+3 = 13

#2 13 ÷ 8 = 1.625

Median: 1.5

Mode: 1

*Describe:

**Measures of Variation**

Range: 3-0=3

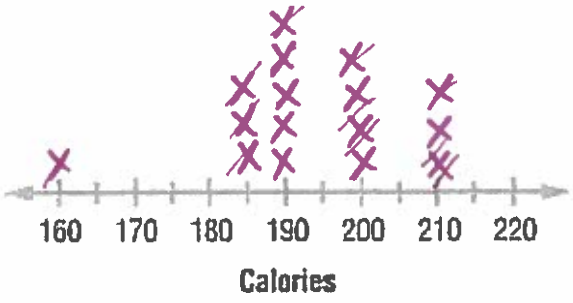
First Quartile: 1

Third Quartile: 2.5

Interquartile Range: 2.5-1=1.5

Outliers: none

2. Make a line plot for the set of data. Describe the data. Include the measures of center and variability.




| Calories in Serving of Peanut Butter | | | |
|---|---|---|---|
| ~~190~~ | ~~160~~ | ~~210~~ | ~~210~~ |
| ~~200~~ | ~~185~~ | ~~190~~ | ~~190~~ |
| ~~185~~ | ~~200~~ | ~~190~~ | ~~210~~ |
| ~~190~~ | ~~185~~ | ~~200~~ | ~~200~~ |

160, 185, 185, 185 | 190, 190, 190, 190 | 190, 200, 200, 200 | 200, 210, 210, 210

**Measures of Center**

Mean: #1 3095
#2 3095 ÷ 16 = 193.4

Median: 190

Mode: 190

*~~Describe:~~

**Measures of Variation**

Range: 210 - 160 = 50

First Quartile: 187.5

Third Quartile: 200

Interquartile Range: 200 - 187.5 = 12.5

Outliers: 160

**Building on Essential Question** - How is using a line plot useful to analyze data?

On a line plot, the mode, range, + outliers are easily seen. It also gives you a visual of all the data.

**Rate Yourself!**

How confident are you about line plots? Check the box that applies.