

Math 7 Strategies 1

Q1 2024
Week 1-4

DATA SAMPLING objectives from Math PSSA 7th grade

PA Grade 7, Math Anchor

M07.D-S.1.1.1

Determine whether a sample is a random sample given a real-world situation.

M07.D-S.1.1.2

Use data from a random sample to draw inferences about a population with an unknown characteristic of interest.

Example 1: Estimate the mean word length in a book by randomly sampling words from the book.

Example 2: Predict the winner of a school election based on randomly sampled survey data.

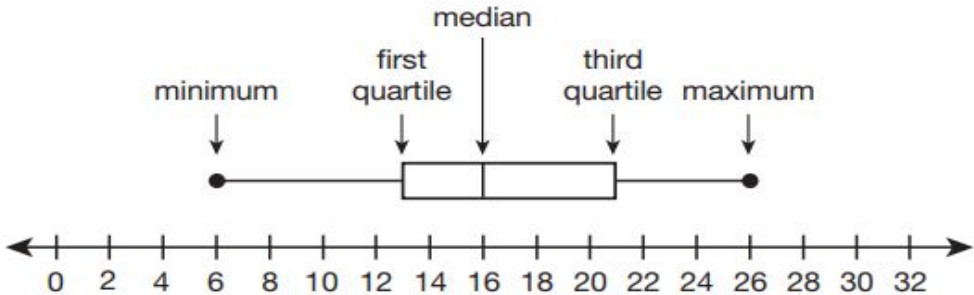
M07.D-S.2.1.1

Compare two numerical data distributions using measures of center and variability.

Example 1: The mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team. This difference is equal to approximately twice the variability (mean absolute deviation) on either team. On a line plot, note the difference between the two distributions of heights.

Example 2: Decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.

- Range, Interquartile Range, DEVIATION
- Various charts/plots
- Box plot
create/interpret (min, Q1, median, Q3, max)
- Mean, Mode, Mean

Term	Definition	Grade
Box-and-Whisker Plot	<p>A plot that visually represents a set of data. A <u>rectangle</u> (the box) is used to represent the dispersion of points between the first and third <u>quartiles</u>, and <u>line segments</u> (the whiskers) are used to represent the dispersion of points between the <u>minimum</u> value and the first <u>quartile</u> and between the <u>maximum</u> value and the third <u>quartile</u>. A <u>line segment</u> drawn within the box represents the <u>median</u> value.</p> <p>The plot provides a five-number summary of the data—the <u>minimum</u>, first <u>quartile</u>, <u>median</u>, third <u>quartile</u>, and <u>maximum</u> values. This five-number summary of the data is specified on the plot or is evident from a <u>number line</u> drawn above or below the plot.</p> <p>The example below shows a horizontal <i>box-and-whisker plot</i>. <i>Box-and-whisker plots</i> can also be vertically oriented.</p>  <p style="text-align: center;">Box-and-Whisker Plot</p> <p>See also <u>Median</u>, <u>Quartile</u>, and <u>Interquartile Range</u>.</p>	6

Math 7 Strategies 1 - Week Sept 16-20 Overview

Monday - Use penny collection and divide group into 2 groups to tape on the DATE of the pennies for better visibility and lay out in a stemplot and box plot. Take a photo with chromebook and copy onto the lab paper. Calculate the mean also. Create a class **stacked box plot** for comparison and make 3 statements true and one false statement onto a group notecard for collection..

Tuesday - Regroup and combined all pennies for **one large box plot** and tape on the board for discussion. Copy onto lab paper and calculate the mean, identify a mode, and each student writes 2 true and 2 false statements about the box plots and data..

Continue in the week

Wednesday - Independent yet helping each other complete the studyisland session of 70% or better on a 10 question session.

Thursday - Independent yet helping each other complete the Lumo Learning Book pgs 112-128 (May have them finish for homework if some have completed it by the end of the period)

Friday - Review Lumo pages with class discussion if it was assigned for homework. Else more time to complete in class and then finish for homework with Monday being the final review day.

FIRST TEST scheduled for TUESDAY 9/24

You're Not Bad At Math: <https://www.youtube.com/watch?v=tg0Z--pmPog>
Growth Mindset vs Fixed: <https://www.youtube.com/watch?v=JfdoJxPjp1k>

3 mins.
2 mins.

GROWTH MINDSET

EVERYTHING TAKES:

- TIME 

- EFFORT 

- PRACTICE

BELIEVE IN
YOURSELF!



Just make sure you're
practicing the right things



"YOU ARE EITHER GOOD AT SOMETHING,
OR NOT"

- FIXED MINDSET

I'M NOT A
MATH
PERSON

