



Engineering Virtual Learning

HS Intro to Engineering Design Lesson #9

April 16, 2020



Objective/Learning Target:

Students will continue to use the measures of central tendency - statistics.
(This is day 4 of a 4 day project.)

Bell-work:

Describe the precision and accuracy of this target.



- A. High Accuracy, High Precision
- B. Low Accuracy, High Precision
- C. High Accuracy, Low Precision
- D. Low Accuracy, Low Precision

Learning Practice:

Find the mean, median, mode and range for the following scores in 5 games of bowling from 2 different competitors.

Striker Steven	Gutter-ball Gill
125	98
132	168
111	110
155	147
109	103

Mean is the Average – add all numbers and divide by how many there are.

Median is the Middle – arrange data in order from largest to smallest and pick the middle number.

Mode occurs Most often – pick the one that is repeated.

Range - Highest number – Lowest number
(difference of the values)

Who would you say has the better precision? Better accuracy?

Why do you think their Statistics are so close even though they had such different scores?

Check For Understanding: Answer Key

Striker Steven	Gutter-ball Gill
125	98
132	168
111	110
155	147
109	103

Total: 632

626

Mean –

SS: $632 / 5 = 126.4$

GG: $626 / 5 = 125.2$

Median –

SS: 125

GG: 110

Mode –

SS: No Mode

GG: No Mode

Range –

SS: 46

GG: 70

Is it strange here to have No Mode for both competitors?

Learning Resource Links:

Measures of central tendency or Statistics -

<https://www.khanacademy.org/math/ap-statistics/summarizing-quantitative-data-ap/measuring-center-quantitative/v/statistics-intro-mean-median-and-mode>

1. Precision measures how close measurements are *to each other*.
2. Accuracy measures how close a result is to the truth.



High Accuracy
High Precision



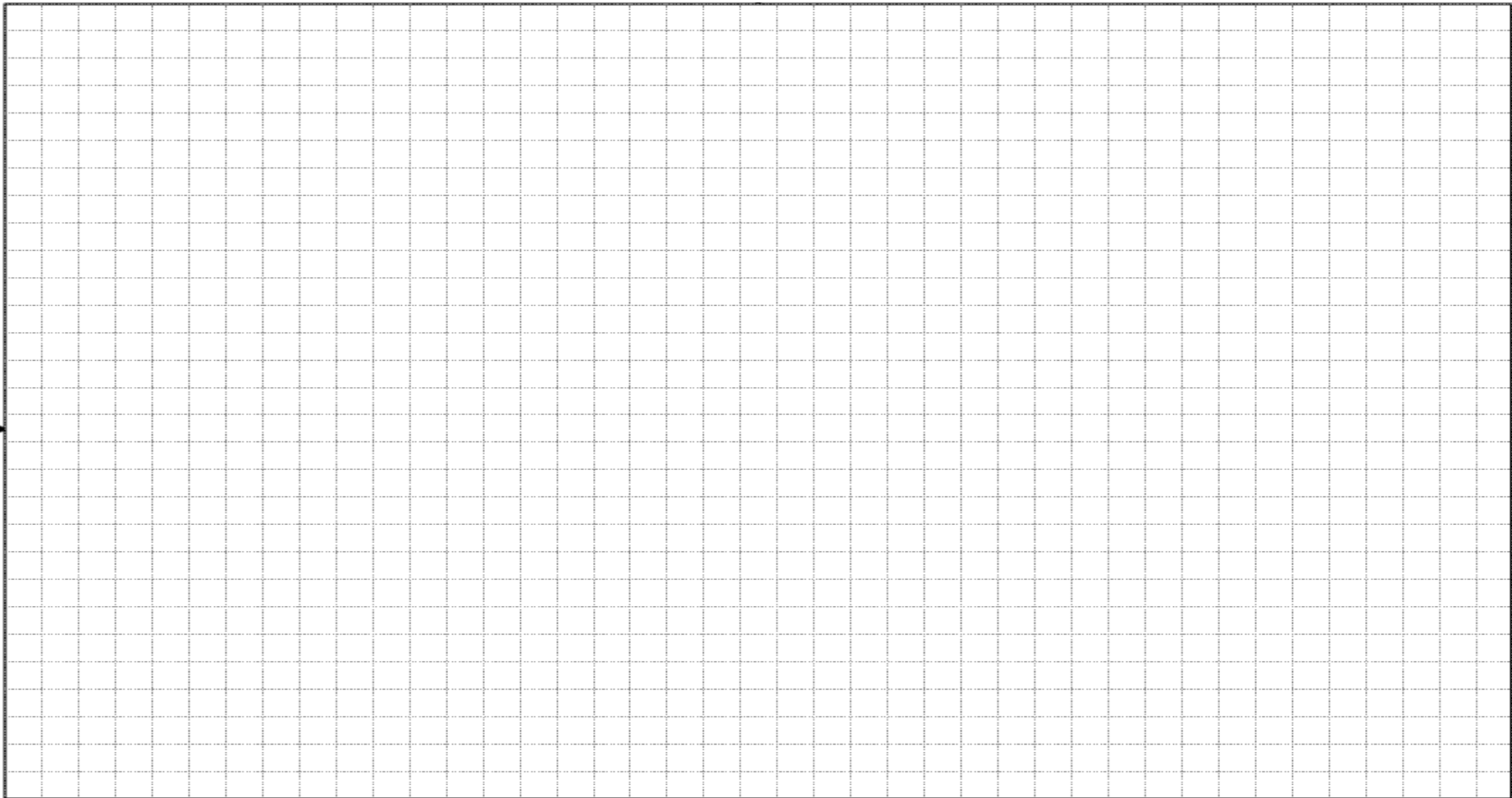
Low Accuracy
High Precision



High Accuracy
Low Precision



Low Accuracy
Low Precision



NAME

TITLE

DATE

PERIOD