

MA103: Mathematical Modeling & Intro to Calculus

Descriptive Modeling of a Data Set 2

Lesson Objectives: Cadets will

1. calculate and describe the center of a dataset using mean and median by hand and with Excel.
 2. calculate and describe the spread of a dataset using sample standard deviation by hand and with Excel.
 3. visualize a dataset using a histogram in Excel and describe the shape of the dataset.
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Admin Notes

- Assignment due
- Course survey (in class - 5 mins) and instructor survey (out of class)
- Zero Point peer graded quiz on Wednesday.
- Assigning Project I on Thursday

Go to the board INDIVIDUALLY and calculate the following for the Military Logistics Dataset "Fuel Usage" column using Excel. You are permitted to ask your group for help:

- Mean:

- Median:

- Range:

- Sample Standard Deviation:

Make a histogram "Distance Traveled" column - then change the number of bins

Write the equations for the Measures of Center

- Mean:

- Median:

Write the equations for the Measures of Spread

- Range:

- Sample Standard Deviation:

Exercise: Calculate the mean, median, range, and sample standard deviation for the following data, by hand.

ID	Push-ups (2 min)	Burpees (2 min)
A01	52	36
A02	45	30
A03	67	48
A04	38	26
A05	50	35
Mean		
Median		
Range		
<i>s</i>		