Unit 4
Mean, Median, Mode, Range
Mean Absolute Deviation
Ch 6.7
**Vocabulary**

Mean: average or \( \bar{x} \)

Median: the number in the middle (numbers arranged in order)

Mode: occurs most often

Range: difference of greatest and least value

Mean Absolute Deviation: average deviation from the mean (think absolute value & average)
Ex 1:
Test Scores are...
65, 68, 71, 77, 81, 82, 86, 88, 93, 93, 95, 97

Mean:
\[ \bar{x} = \frac{65 + 68 + \ldots + 95 + 97}{12} = \frac{996}{12} = 83 \]

Median:
\[ \frac{82 + 86}{2} = 84 \]

Mode:
93

Range:
97 - 65 = 32
Ex 2: Find the mean, median, mode, range.

420, 360, 398, 196, 398, 400

Mean: \[
\text{add up: } 2172 \div 6 = 362
\]

Median: \[
196, 340, 398, 398, 400, 420 \quad 398
\]

Mode: \[
398
\]

Range: \[
420 - 196 = 224
\]
Ex 3: Find the mean, median, mode, range.

5.04, 5.13, 4.68, 4.52, 5.08

Mean: \( \frac{84.45}{5} \approx 4.89 \)

Median: 4.52, 4.68, 5.04, 5.08, 5.13 (5.04)

Mode: none

Range: 5.13 – 4.52 (0.61)
Ex 4: Find the mean & mean absolute deviation.

13, 15, 9, 35, 25

Mean: \[ \frac{97}{5} = 19.4 \]

Mean Abs Dev:

\[
\frac{9 - 19.4 + 13 - 19.4 + 15 - 19.4 + 25 - 19.4 + 35 - 19.4}{5} = \frac{10.4 + 6.4 + 4.4 + 56 + 15.6}{5} = \frac{42.4}{5} = 8.48
\]
Ex 5: Find the mean & mean absolute deviation.

43, 57, 58, 47, 40, 50, 38, 52

Mean: 48.125

Mean Abs Dev: 6.13
Classwork: worksheet

Homework: pg 365  #1-4, 9-14