Scores for 3rd and 4th hours:
Make some statements to compare the 3rd and 4th hour scores.

TEST SCORES

3rd hour

4th hour

• 3rd hour did better because 25% scored below 55 compared to 50% of 4th hour scoring below 55.
• 3rd hour did better because 50% score above 70 compared to only 25% of 4th hour scored above 70.

Making a Box-and-Whisker using the graphing calculator.

34, 45, 19, 23, 29, 46, 49, 50, 42, 21, 23, 44, 38, 28, 40
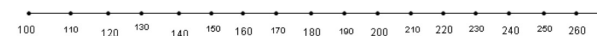
Box-and-Whisker of Bowling Leagues.

Monday scores:
176, 212, 220, 210, 206, 195, 220, 110,188, 240,180, 250, 214, 113, 218
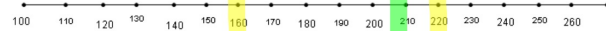
Thursday scores:
219, 157, 160, 206,174, 186,166,140,195, 210, 217,145, 220, 168,

Monday League

100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260

Thursday League

Slide 1 (top-left):

Monday League

Thursday League

1. If you bowled 210 in the Thursday league you are better than what % of the bowlers in your league? *75%*

2. If you bowled 160 in the Monday league you are better than what % of the bowlers in your league? *<25%*

3. If you bowled 220 in the Thursday league you are the best bowler on Thursday night. What % of the Monday bowlers are better than you? *25%*

4. If you normally bowl 190 which league would you rather join? Explain.

5. If you normally bowl 140 which league would you rather join? Explain

Slide 2 (top-right):

Measures of Central Tendancy:

- Mean
- Median
- Mode

These give a general location for the "middle" of the data
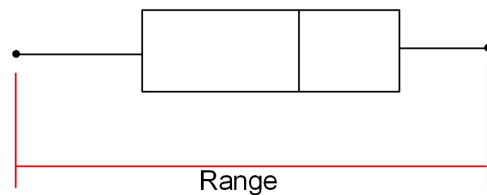
Measures of Variability:

- Range
- Interquartile Range
- Standard Deviation

These give an measure of how spread out the data is and how much variation there is amongst the data

Slide 3 (bottom-left):

How can you find the Range of a set of data using a Box-and-Whisker plot?

Range = Upper Extreme - Lower Extreme

Max - Min

Range

Slide 4 (bottom-right):

Percentile: A number that represents the percent of data below a certain score.

If you took a test and were told that you were in the 80th percentile that means:

- Your score was better than 80% of the other scores
- 80% of the other scores were below yours.

Use this list of numbers.

14, 16, 17, (18,) 23, 26, 26, 28, 29, 30

29 is at what percentile?

$$\frac{8}{10} = 80^{th}$$

8 of the data values are below 29

26 is at what percentile?

$$\frac{5}{10} = 50th$$

5 of the 10 data values are below 26

What number is at the 30th percentile?

$$.30(10) = 3$$

18

18 has 3 data values below it.