

## Honors Statistics

### Review: Percentiles and Box Plots

The data represents tree circumferences.

1.8   1.9   1.8   2.4   5.1   5.5   5.1   8.3   13.7   5.3   4.9   3.7   3.8   4.0   3.4  
5.2   4.1   3.7   3.9   3.1

<b>Find the percentile that corresponds to the given circumference.</b>	<b>Find the circumference that corresponds to the given percentile.</b>
1.   2.1	9.   15 <sup>th</sup>
2.   4.8	10.   75 <sup>th</sup>
3.   3.7	11.   10 <sup>th</sup>
4.   10.5	12.   12 <sup>th</sup>
5.   5.6	13.   55 <sup>th</sup>
6.   9.4	14.   85 <sup>th</sup>
7.   3.0	15.   95 <sup>th</sup>
8.   8.8	16.   32 <sup>nd</sup>

- Write the five number summary for the data.
- Sketch a boxplot for the data.
- Does the boxplot appear to be fairly symmetrical, skewed left, or skewed right? Explain.
- Determine if there are any outliers in the data set. Show your work.

### Answers

- 15<sup>th</sup>
- 60<sup>th</sup>
- 30<sup>th</sup>
- 95<sup>th</sup>
- 90<sup>th</sup>
- 95<sup>th</sup>
- 20<sup>th</sup>
- 95<sup>th</sup>
- 2.15
- 5.15
- 1.85
- 1.9
- 4.05
- 5.4
- 11
- 3.7
- 5 number summary: 1.8, 3.25, 3.95, 5.15, 13.7
- boxplot (title the boxplot and make equal increments)
- Skewed right; there is less data to the right
- 2 outliers; 8.3 and 13.7

