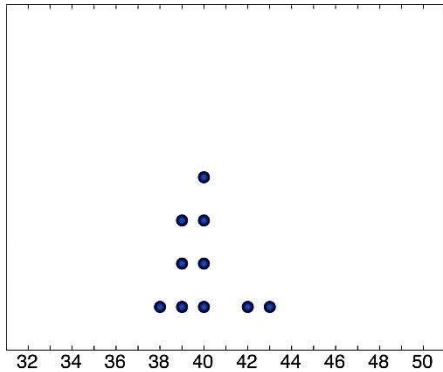


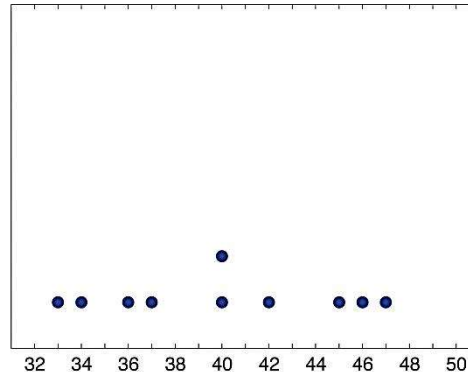
Unit 1 Review – Interpreting Distributions

Name _____ Per _____

The dot plots below show the average heights of four-year-olds (in inches). The graph on the left shows the data of several girls, the graph on the right shows the data of several boys.



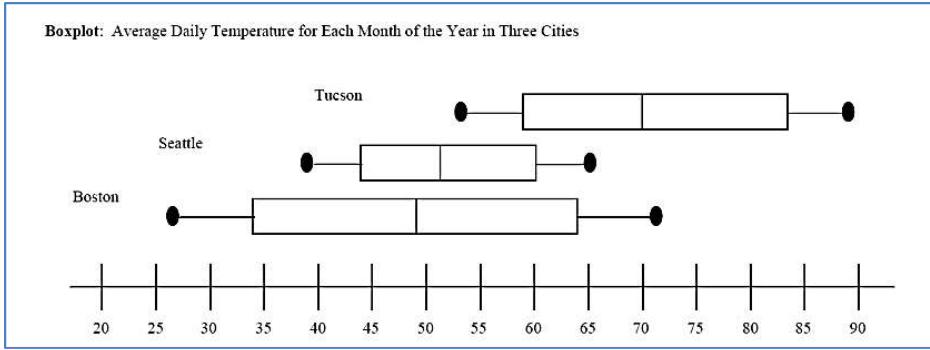
(a) Set I



(b) Set II

1. How many girls were measured? How many boys?
2. Do girls or boys have a greater standard deviation? Explain.
3. What is the mean, median, and mode for the boys?
4. Is the mean or median higher for the girls?
5. Is the boys' data best described as symmetric, skewed left, or skewed right?
6. Jane is the shortest girl. How tall is Jane?
7. If each of the boys was taller by exactly one inch, what would the new mean be? (Do not redo calculations.)
8. If each of the boys was taller by exactly one inch, what would happen to the standard deviation? Explain.

The box plots below show the average daily temperature (in degrees Fahrenheit) for each month of the year in three different cities.

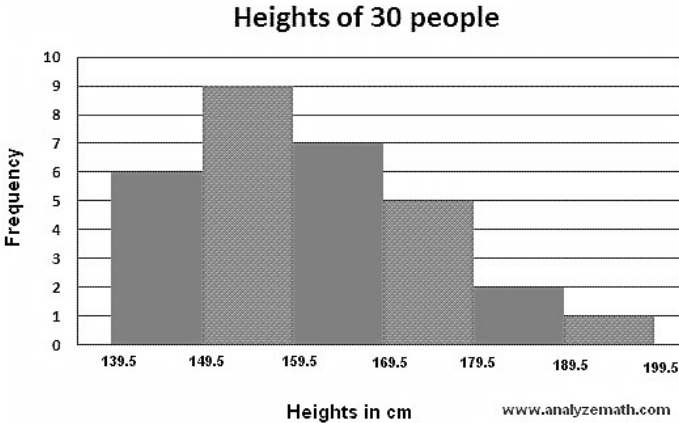


9. Estimate Q1 for Seattle.

10. Estimate Q3 for Boston.

11. Your friend Max wants to move to one of these three cities and he prefers warm/hot weather. Which city would you recommend that he move to? Support your answer with statistics.

The histogram below shows the heights of 30 people in cm.



12. How many people are between 179.5-189.5 cm?

13. How many people are shorter than 159.5 cm?

14. Is this distribution best described as symmetric, skewed left, or skewed right?

15. How many people are exactly 160 cm tall?

Answer Key

1. 10 girls, 10 boys	2. Boys have a greater standard deviation since their data is spread out more, farther from the mean.	3. Mean = 40 Median = 40 Mode = 40	4. They are the same; they are both 40.	5. Symmetric
6. 38 inches	7. 41 inches	8. The standard deviation would not change since the points would be the same distance from the mean.	9. 44 degrees Fahrenheit	10. 64 degrees Fahrenheit
11. Max should move to Tucson since it has the highest median and maximum temperatures.	12. 2 people	13. 15 people	14. Skewed right	15. Can't tell since histograms don't show exact values.