

Radical Expressions and Data Analysis Unit Portfolio

ALGEBRA 1 B

Directions: Complete each of the tasks outlined below.

Task 1

For 7 days keep track of the number of pieces of mail you receive at your home.

- Put your data into a frequency table having intervals of 0–4, 5–9, 10–14, and 15–19.
- Use the frequency table to create a histogram of the data.
- Do you notice any patterns in the histogram?

Task 2

- Pick 9 different dog breeds and find their average weights. List each breed and weight. Find the mean, median, and mode of the data. Which measure of central tendency best describes the data? Explain your answer.
- How much would a 10th dog have to weight for the average weight in part (a) to be 250 pounds? Explain how you determined your answer.

Task 3

Pick a city in Maryland and determine the average high temperatures for each month. Record this in a table.

- Create a box-and-whisker plot for the data.
- What is the median temperature?
- 75% of the temperatures are below what value? How do you know?
- 75% of the temperatures are above what value? How do you know?
- What conclusions can you draw about the temperature in Maryland?