

Math 107 Quiz #6
February 15, 2011

Name: _____

Show all work and answers on a separate paper. Staple this sheet to your answers. Simplify your answers as much as possible.

1. Consider the following set of data, which gives the lengths of a certain type of fish (in millimeters) caught in a lake on the same day.

120 125 132 135 136 138 113 117 142 152

- (a) (3 pts.) Give the five-number summary for the data set (Low, Lower Quartile, Median, Upper Quartile, High)
- (b) (2 pts.) Sketch a box and whisker plot for the data set.
- (c) (3 pts.) Find the standard deviation of the data set. (Include units on your answer.)
2. Suppose lengths of pregnancy are normally distributed with a mean of 270 days and a standard deviation of 15 days.
- (a) Using the 68-95-99.7 Rule, approximately what percentage of pregnancies have a length:
- (1 pts.) Between 255 and 285 days?
 - (2 pts.) Less than 285 days?
 - (2 pts.) Less than 240 days?
- (b) (2 pts.) Find the standard score for a pregnancy length of 276 days and use it to approximate the percentage of pregnancies for which the length is greater than 276 days.