1) Customers waiting at Ellerton Bank have been complaining about the amount of time they must wait in line. Managers at the bank, beginning to investigate the problem, have recorded sample waiting times for customers at the bank. Here are the waiting times (in minutes):

11, 21, 17, 9, 12, 23, 7, 5.

A) What is the median of this data set? If your answer is not an integer, round your answer to at least one decimal place.

B) What is the mean of this data set? If your answer is not an integer, round your answer to at least one decimal place.

C) how many models does the data set have, and what are their values? Indicate the number of modes by clicking in the appropriate circle, and then indicate the value(s) of the model(s), if applicable. Choose one of these. 1) zero modes, 2) one modes \_, 3)two modes \_ \_.

2) BIG Corporation produces just about everything but is currently interested in the lifetimes of its batteries, hoping to obtain its share of a market boosted by the popularity of portable CD and MP3 players. To investigate its new line of Ultra batteries, BIG randomly selects Ultra batteries and finds that they have a mean lifetime of hours, with a standard deviation of hours. Suppose that this mean and standard deviation apply to the population of all Ultra batteries. Complete the following statements about the distribution of lifetimes of all Ultra batteries.

a) According to Chebyshev’s theorem, at least 84% of the lifetimes lie between ? hours and ? hours. (round your answer to the nearest interher.)

b) According to Chebyshev’s theorem, at least ?% of the lifetimes lie between 687 hours and 1063 hours.

c) Suppose that the distribution is bell-shaped. According to the empirical rule, approximately ?% of the lifetimes lie between 687 hours and 1063 hours.

d) suppose that the distribution is bell-shaped. According to the empirical rule, approximately 99.7% of the lifetimes lie between ? hours and ? hours.

3) The ages (in years) of the doctors at a local clinic are

55, 36, 31, 35, 38.

Assuming that these ages constitute an entire population, find the standard deviation of the population. Round your answer to at least two decimal places. ?

4) The following list contains P/E ratios (price of stock divided by projected earnings per share) for health care companies.

36, 81,16, 405, 58, 17, 89, 46, 65, 13, 21, 16, 106, 186, 47, 22.

Find th and th percentiles for these ratios.

The 40th percentile: ?

The 75th percentile: ?