1. In a survey, the responses to the question, "How much time do you spend in the shower every day?" were normally distributed with a mean of 15 minutes and a standard deviation of 2 minutes.

a) What interval of times contains 95% of all the responses.

11 To 19 min

b) What % of respondents spend less than 13 minutes in the shower?

16%

c) If you shower for 19 minutes what % of the respondents showered longer than you?

2.5%

d) What % of respondents shower between 11 and 15 minutes? 47.5%

2. At the midterm of a college class the grades are normally distributed with a mean of 68 and a standard deviation of 4.

a) If passing is getting at least 60%, what percent of the class is passing?

97.5%

b) The professor requires students getting between one and two standard deviations below the mean to attend a study session. If there are 92 students in the class, how many will need to attend the study session?

≈ 12 people 13.5% of 92 $\dfrac{13.5}{100} = \dfrac{x}{92}$

c) If you grade at the midterm is a 72, what percentile are you in?

84th %-tile