

Math 153 - Quiz 9

April 13, 2017

Name _____

Score _____

Show all work to receive full credit. Supply explanations when necessary. **YOU MUST WORK INDIVIDUALLY.**

1. (4 points) In a recent year, SAT scores were normally distributed with mean 1498 and standard deviation 316. What is the probability that a randomly selected test has a score less than 1350 or greater than 1600?

2. (2 points) Heights of U.S. women aged 20–29 are normally distributed with mean 64.2 in and standard deviation 2.9 in. In a group of 750 women, about how many are exactly 66 in tall?

3. (2 points) The lengths of time employees have worked at a certain company are normally distributed with mean 11.2 years and standard deviation 2.1 years. In a company cutback, the lowest 12% in seniority are laid off. What is the maximum length of time an employee could have worked and still be laid off?

4. (2 points) Refer to the problem above. What length of employment is at the 95th percentile?