Math 153 - Quiz 8

April 14, 2016

Name _____

Score _____

Show all work to receive full credit. Supply explanations when necessary.

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1. (4 points) A random number generator generates uniformly distributed random numbers between 2 and 7. Let the random variable x represent a randomly generated number.

   (a) Sketch the probability density curve for x.

   (b) What is the probability that x is between 3 and 5?

2. (4 points) A certain bank gets an average of 27 customers per hour.

   (a) What is the probability that the bank has more than 30 customers in any given hour?

   (b) What is an unusually small number of hourly customers?

3. (2 points) Certain aspirin tablets have weights that are normally distributed with mean 250 mg and standard deviation 5 mg. What is the proability that a randomly selected tablet will weigh exactly 249 mg?