Math 153 - Quiz 5

Name _____

February 22, 2018

Score _____

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

1. (7 points) A jar contains 5 green marbles, 8 blue marbles, and 9 red marbles. A marble is selected at random.

   (a) What is the sample space for this probability experiment?

   (b) What is the probability of each outcome in your sample space?

   (c) Are your probabilities in part (b) experimental, theoretical, or subjective?

   (d) If A is the event of drawing a blue marble, then what is $\overline{A}$? What is the probability of $\overline{A}$?

   (e) Jerry actually carried out the experiment 87 times. In all, he selected 29 blue marbles, 23 green marbles, and 35 red marbles. What are his experimental probabilities?

2. (1 point) A father said to his son, "There is no way you're taking the new car. You're a terrible driver! There's a 99% chance you'd destroy the car!" What kind of probability did the father compute? Choose from experimental, theoretical, geometric, or subjective.

3. (2 points) A letter is selected at random from the word EYJAFJALLAJOKULL.

   (a) What is a possible sample space?

   (b) What is the probability of selecting the letter J or the letter L?