Math 112 - Quiz 8

Name _____

April 24, 2019

Score _____

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

1. (3 points) Consider the experiment of rolling an 8-sided die.

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

   (b) Give an example of an event (associated with this experiment). Describe it in words.

   (c) Determine the theoretical probability of the event you described above.

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

   (a) What is the sample space?

   (b) What is the event of selecting a consonant?

   (c) What is the probability of selecting the letter s or e?

Turn over.

3. (1 point) Suppose A is an event with $P(A) = 0.635$. Determine $P(A')$.

4. (1 point) Decide whether the probability is theoretical (classical) or experimental (empirical).

   (a) Isabella grabbed 14 Skittles candies from a jar, and 6 of them were red. Her probability of selecting a red candy is 6/14.

   (b) In flipping two coins, the probability of them both landing heads up is 25%.

5. (2 points) Flip a coin 19 times and record only the total number of heads: _____.

   (a) Based on your recorded value, what is the probability of your coin landing tails up?

   (b) Is your probability theoretical (classical) or experimental (empirical)?

   (c) Would you be surprised if you got no heads in 19 flips? Explain.