Math 112 - Quiz 10

May 2, 2019

Name key

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?

   $\{1,2,3,4,5,6,7,8\}$

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

   EVENT OF ROLLING A MULTIPLE OF 3 $= \{3,6\}$

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

   $P(\{3,6\}) = \frac{2}{8}$

2. (4 points) A letter is selected at random from the word *sleeveless*.

   (a) What is the sample space?

   $\{s,l,e,v\}$

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

   $\{s,l,v\}$

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

   $\frac{7}{10}$

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

   $1 - 0.635 = 0.365$

4. (2 points) 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.

   EXPERIMENTAL

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

   THEORETICAL