

Math 112 - Quiz 11

May 2, 2018

Name key Score _____

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

1. (3 points) Which of the following are probability experiments? Circle all that apply.

- (a) A card is selected from a shuffled deck.
(b) A cup of water is placed into the freezer.
(c) An 8-sided die is rolled.
(d) A ball is thrown upward.
(e) A coin is flipped.
(f) A student answers a true/false question by guessing.

2. (3 points) Consider the experiment of rolling a 4-sided die.

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

$\{1, 2, 3, 4\}$

- (b) Give an example of an event. Describe it in words.

EVENT OF ROLLING AN EVEN NUMBER = $\{2, 4\}$

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

$$\frac{2}{4}$$

3. (4 points) Give an example of a probability that might be assigned to

- (a) an impossible event

0

- (b) a certain event

1

- (c) an event that is very unlikely, but not impossible

$$0.001 = \frac{1}{1000}$$

- (d) an event that is very likely, but not certain

$$0.999 = \frac{999}{1000}$$