

# Math 099 - Quiz 9

April 30, 2019

Name key

Score \_\_\_\_\_

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

10 coins

1. (3 points) A jar contains 5 pennies, 2 nickels, and 3 dimes. A single coin is selected at random. Determine the probability of

(a) selecting a penny.

$$\frac{5}{10}$$

(b) selecting a nickel or dime.

$$\frac{2+3}{10} = \frac{5}{10}$$

(c) selecting a penny, nickel, or dime.

$$\frac{5+2+3}{10} = \frac{10}{10} = 1$$

2. (2 points) In the problem above, what is the sample space?

$\{P, N, D\}$

3. (5 points) A letter is selected at random from the word *zenzizenzizenic*.

16 LETTERS

(a) What is the sample space?

$\{z, e, n, i, c\}$

(b) What is the probability of selecting the letter *e*?

$$\frac{3}{16}$$

(c) What is the probability of selecting a letter other than *e*?

$$1 - \frac{3}{16} = \frac{13}{16}$$

(d) What is the probability of selecting the letter *z* or *n*?

$$\frac{9}{16}$$