Name _____ Date _____

Probability Distribution Based on Empirical Probabilities - Matching Worksheet

Match the word problems to their answers. Write the letter of the answer that matches the problem.

_____ Robert rolls two dice twice. The number of possible outcomes is 1296. The number of possible outcomes consisting entirely of dice {four and six} is 16, and the number of possible outcomes consisting entirely of fours is 1.

1. The probability of an outcome that does not consist entirely of number of four is ___.

a. Empirical probability

_____ Joseph rolls two dice twice. The number of possible outcomes is 1296. The number of possible outcomes consisting entirely of dice {one and three} is 16, and the number of possible outcomes consisting entirely of twos is 1.

2. The probability of an outcome that consists entirely of number the one is ___.

b. 0.9992

_____ 3. Last year, 215 of my 430 customers purchased one or more of my Ipods on-line. Thus, the probability that a randomly selected customer purchased an Ipod on-line is 215/430 = 0.5. Is this estimated probability or empirical probability?

c. Empirical probability

_____ 4. Last month, 324 of my 650 customers purchased one or more of my computers on-line. Thus, the probability that a randomly selected customer purchased a computer on-line is 324/650 = 0.49. Is this estimated probability or empirical probability?

d. 0.00077