Math 3 Name_____Date_____

Long Term Assignment #1

Period_____

1) Suppose you roll a *four sided* die and then you roll it again. The sides of the die are labeled 1, 2, 3, and 4.
   a) Make a chart that shows the sample space of all possible outcomes [1 pt]

   b) How many possible outcomes are there? [1 pt]

      Are they equally likely? [1 pt]

   c) Make a probability distribution table for the sum of the two rolls (*first die* + *second die*). [3 pts]

   d) What sum are you most likely to get? [1 pt]

   e) What is the probability that the sum is at most 7? Show or explain your reasoning. [2 pts]

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2) Use your work from problem 1 and the appropriate form of the Addition Rule to answer these questions about a roll of the two four-sided dice.

a) What is the probability that you get a sum of 5 or you get a 2 on the first die? [1 pt]

b) What is the probability you get a sum of 5 or you get doubles? [1 pt]

c) What is the probability you get a sum of 6 or you get doubles? [2 pts]

d) What is the probability you get a difference of 0 or a sum of 6? [2 pts]