

## Fun with Dice

Date: \_\_\_\_\_

Consider an experiment where you first roll a red die and then a blue die. If you roll doubles (the same number on both dice), your score is 0. Otherwise, your score is the sum of the numbers showing on the dice.

a) Record your results (scores) in the chart representing the sample space shown below.

		Blue Die					
		1	2	3	4	5	6
Red Die	1						
	2						
	3						
	4						
	5						
	6						

b) Find the probability of scoring 6.

c) What is the most likely score(s)?

d) What is the probability of getting an even number score?

e) You win if you score 0 or score 4. Find the probability of winning.

f) Suppose there is a special bonus provided. You still win if you score 0 or 4. However, if you roll a seven, you get a second chance to roll. If you roll a 0 or 4 on the second try you still win. Otherwise, you lose. Calculate the new probability of winning the game.