Name: _____ Date: _____

BLM 5–8

Section 5.4 Extra Practice

1. In a board game, a player flips a card that says *forward* on one side and *back* on the other side. Then the player rolls a six-sided die to see how many spaces to move on the board.

a) Make up the card and use it to help you answer the following questions.
b) Complete the table to organize the outcomes.

	1	2	3	4	5	6
Forward (F)						
Back (B)						

c) Draw the tree diagram to organize the sample space.
d) How many possible outcomes are there?

2. Use the table for #1 to record each of the following probabilities as a fraction and a percent.

Example: What is the probability of flipping the side of the card that says Back and rolling a 1, 2, or 3?

Step 1: List the outcomes. There are 3 outcomes: (B, 1), (B, 2), (B,3).

Step 2: Express as a fraction.

$P(\text{B, 1, 2, } or \text{ 3}) = \frac{3}{12}$

Step 3: Express the fraction as a percent.

$\frac{3}{12} = 0.25 = 0.25 \times 100\% = 25\%$

a) What is $P(\text{F, 3})$?
b) What is $P(1 \text{ } or \text{ } 2)$?
c) What is the probability that the player will have to move back?
d) What is the probability that the player will not have to move at all?