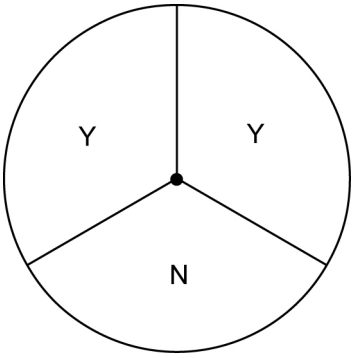
Name: _____ Date: _____

BLM 5–12

Section 5.5 Extra Practice

Jeremy is about to take 2 free throws in a basketball game. The team's records show that he has a $66.\overline{6}\%$ or 2 out of 3 chance of sinking the basketball into the hoop for each shot. His team needs both points to win.

1. Use a paper clip with a pencil and the spinner below to test how successful Jeremy will be in 12 sets of free throws. Record your results in the table.



Trial	First Attempt (Yes or No)	Second Attempt (Yes or No)	Both Attempts Successful (Yes or No)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

2. What is the experimental probability that Jeremy's team won the game?

a) Write the experimental probability as a fraction.

$$\frac{\text{number of both attempts successful}}{\text{total number of both attempts}} = \frac{\square}{12}$$

b) Convert this fraction to a percent. You may need a calculator.

3. What is the theoretical probability that Jeremy's team won the game?

a) Create a tree diagram to find the possible outcomes.

b) Write the theoretical probability as a fraction.

$$\frac{\text{number of favourable outcomes}}{\text{number of possible outcomes}} = \frac{\square}{\square}$$

c) Convert this fraction to a percent.

4. Compare the experimental probability with the theoretical probability.