



## The Multiplication Game

Roll 2 dice. Multiply the numbers.

If the answer is odd, player #1 gets a point.

If the answer is even, player #2 gets a point.

Roll the dice 36 times.

Name \_\_\_\_\_

Date \_\_\_\_\_

Period \_\_\_\_\_

1) Predict whether or not you think this game is fair. Explain your prediction.

2) Play the game.

3) Roll Number	Product	Odd or even?	Roll Number	Product	Odd or even?	Roll Number	Product	Odd or even?
1			13			25		
2			14			26		
3			15			27		
4			16			28		
5			17			29		
6			18			30		
7			19			31		
8			20			32		
9			21			33		
10			22			34		
11			23			35		
12			24			36		

Player One Score \_\_\_\_\_

Player Two Score \_\_\_\_\_

Winner \_\_\_\_\_

3) Based on your data, what is the experimental probability of rolling an odd product? An even product?

$$P(\text{odd}) = \underline{\hspace{2cm}} \quad P(\text{even}) = \underline{\hspace{2cm}}$$

4) Find all the possible products you can get when rolling two number cubes. Organize your data.

5) What is the theoretical probability of rolling an odd product? An even product?

$$P(\text{odd}) = \underline{\hspace{2cm}} \quad P(\text{even}) = \underline{\hspace{2cm}}$$

6) Is the multiplication game a fair game? Explain why or why not using probability.

