No 5 for 5 today - get started on the lesson an	nd I will be back - another meeting
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Name:	Hour:	Date:	

## Lesson 5.2: Day 1: Odds or evens, who will win?







We're going to play a game to answer this guestion. You and your partner must decide who will be "Odds" and who will be "Evens". Then you will roll two dice and multiply the numbers. If the product is odd, the odds person wins and vice versa for evens. Play 20 times, keeping track of how many wins each person has.

1. How many times did the odds win? 6/20

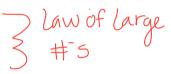
Write this as a fraction out of 20 and turn it to a percentage.

Maybe the odds just had a run of bad luck. Let's see how the rest of the class did with odds, Write the number of odds wins for your group in the table on the board.

2. Find the total percent of rolls that were odd products for the whole class.

How does this compare to your group's results?

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- 3. To determine the true probability of rolling an odd product, we should list out all possible products that we could get. Complete the table below to show all possible products (multiply).
- 4. Use your table to find the probability of rolling an odd product.

 $\frac{1}{36} = \frac{1}{4} = 0.25$ 

5. Which was closer to the percentage you found in #4, your group data or the classroom data? Why do you think that is? Class data blc there are more volls. Long term predictable w/prob

	1	2	3	4	5	6
1	1	2	3	4	5	6
2	2	4	6	8	10	12
3	3	6	9	12	15	18
4	4	8	12	16	20	24
5	5	10	15	20	25	30
6	V	12	B	24	30	36

6. Use the table to find the probability of rolling each of the following products:

Onderwork

a) 4 or a 5

b) Number besides 6

c) Number from 1 to 36

Inclusive

Important ideas Pvob mode	1-1:4-5	( ) ( ) ( ) ( )	compleme Not ha	nt: Pholips	of an	eveat 1-P/A
their probs  - Prob must add to   Cannot occur together						
be by OH { General Addition Pule P(A) + P(B)						
		Check Yo	ur Understa	anding	P	(AUB)
Suppose you tear open the corner of a bag of M&M'S® Milk Chocolate Candies, pour one candy into your hand, and observe the color. According to Mars, Inc., the maker of M&M'S, the probability model for a bag from its Cleveland factory is:						
Color	Blue	Orange	Green	Yellow	Red	Brown
Probability	0.207	0.205	0.198	0.135	0.131	0.124
Probabilities add to Each prob b/+ 0+/ (b) Explain why events Red and Blue are mutually exclusive  An M+M (armot be Red + Blue at the same  Himl						
For each of the fo	_				na the proba	ability.
(c) Find the probability that you don't get a blue M&M. $7(B)^{C} = -0.207 = 0.793$						
(d) What's the						
P(DUBr) = P(0) + P(Br) = 0.205 + 0.124 = 0.329						
(e) What's the probability that don't get a red or a green? $P(P \cup G) = P(P \cup G)$						
-0.13 -0.198 = 0.67  The Stats Medic						

Lesson 5.2 Day 1- Basic Probability Rules

Name:

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