Theoretical Probability

Notes	Video Links & Practice Space
Vocabulary **Simple Experiment**: a _____ time event that can be repeated **Theoretical Probability**: A number between 0 and __ representing the _____ likelihood of an event. **Experimental Probability:** The probability of an event based on _____ data from an experiment.	**Vocabulary (0:53)**
The probability model P= probability Event = favorable outcome $$P(\text{event}) = \frac{\text{Number of favorable outcomes}}{\text{Number of possible outcomes}}$$ Calculate the probability of rolling a 1 on a dice	**Probability Model (1:45)**

Practice	**Practice Problems (2:20)**
1. If you had a deck with all 26 letters of the alphabet what is the theoretical probability of drawing a vowel? 2. If I roll a dice what is the theoretical probability of rolling an even number?	
Expressing Probability Can be expressed in three _____ formats ● Fraction ½ ● Decimal 0.5 ● Percent 50%	**Expressing Probability(1:55)**
Probability of Something not happening 1. If I spin a spinner with the number 1-10 on it. Determine the probability of not landing on a multiple of 2. 2. If you roll dice with the numbers 1-6 on it. Determine the probability of not landing on the number 4.	**Probability of something not happening (2:06)**

Practice	**Practice Problems (2:59)**
3. Given a bag of 10 cards: 4 blue, 3 red and 3 yellow. What is the theoretical probability of picking a blue? What about the theoretical probability of picking a white?	

4. Mrs Johnson's 5th grade class was surveyed on hours they spent watching tv a week. What is the probability of a student watching 7 hours?

Hours spent watching tv	Number of students
5 or less	2
6	4
7	8
8 or more	10