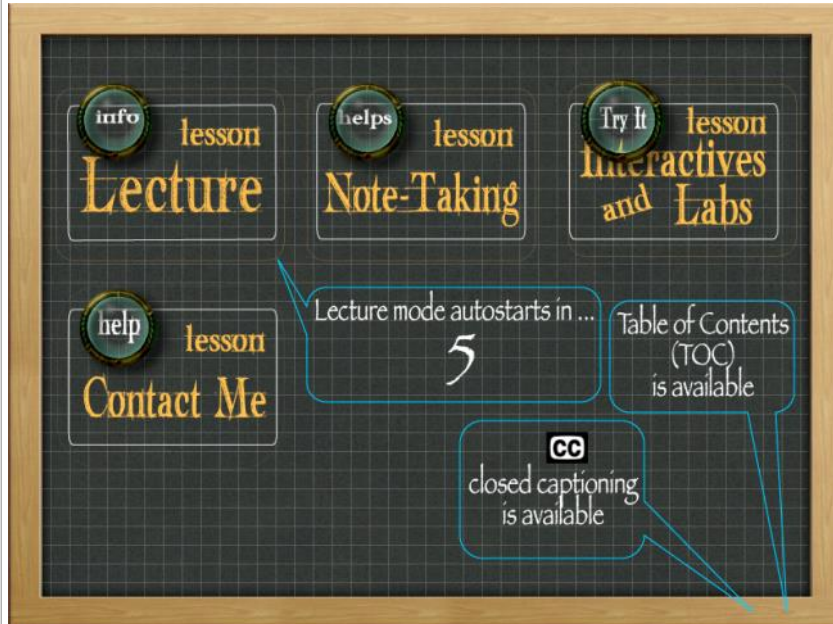


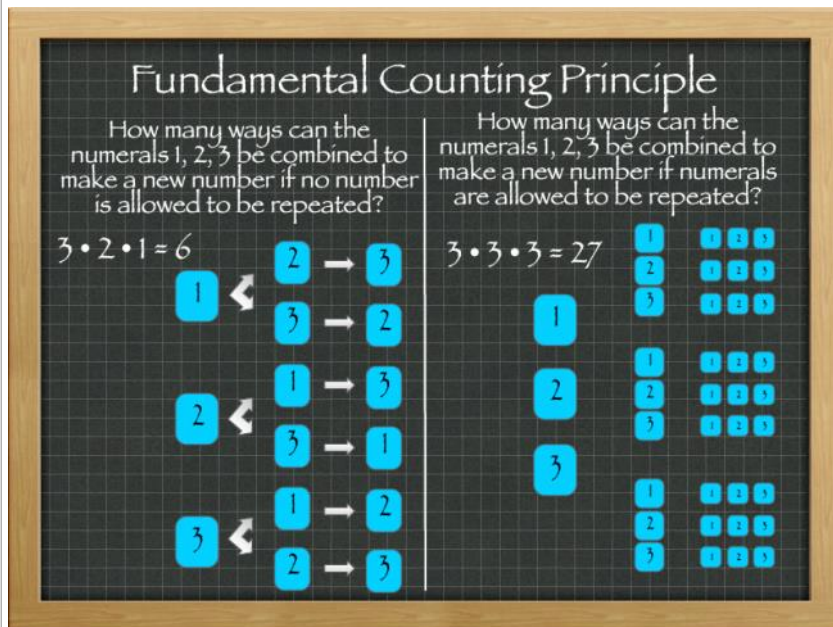
Fundamental Counting Principle

Monday, March 24, 2014
6:30 PM

Slide



Notes



The fundamental counting principle lets you calculate how many combinations of things you have. It comes in two 'flavors': repeating and not repeating.

Let's see an example of each. In both cases we have cards that have a 1, 2, or 3 on them. We want to know how many possible combinations of each of the cards we could have. The example to the left however doesn't allow the numbers to be repeated.

This is a perfect example of those times when you only have one copy of each. There are three possibilities for the first card. After that, for each first position there are two possible 2nd positions. For the third position there is just one card left. That gives us 3 times 2 times 1 which is 6 possible combinations.

Let's now look at the option where we are allowed to repeat cards. We still have 3 possibilities for the first card, but when we get to the second one, we still have three possibilities. For the third card, still three as well. This time the possible combinations would be three times three times three which would give you 27 possible combinations.

Drag the math steps to the correct pattern.

5•4•3•2•1

5•5•5•5•5

repeats

no repeats

Undo

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