Absolute Value Inequalities

Thursday, January 19, 2012
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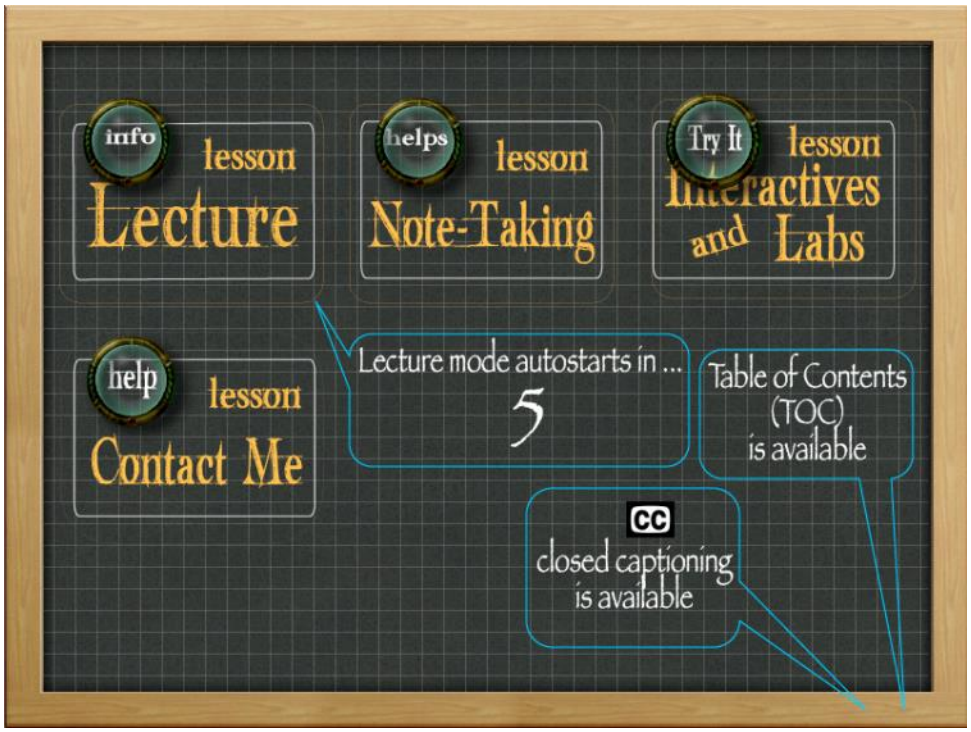
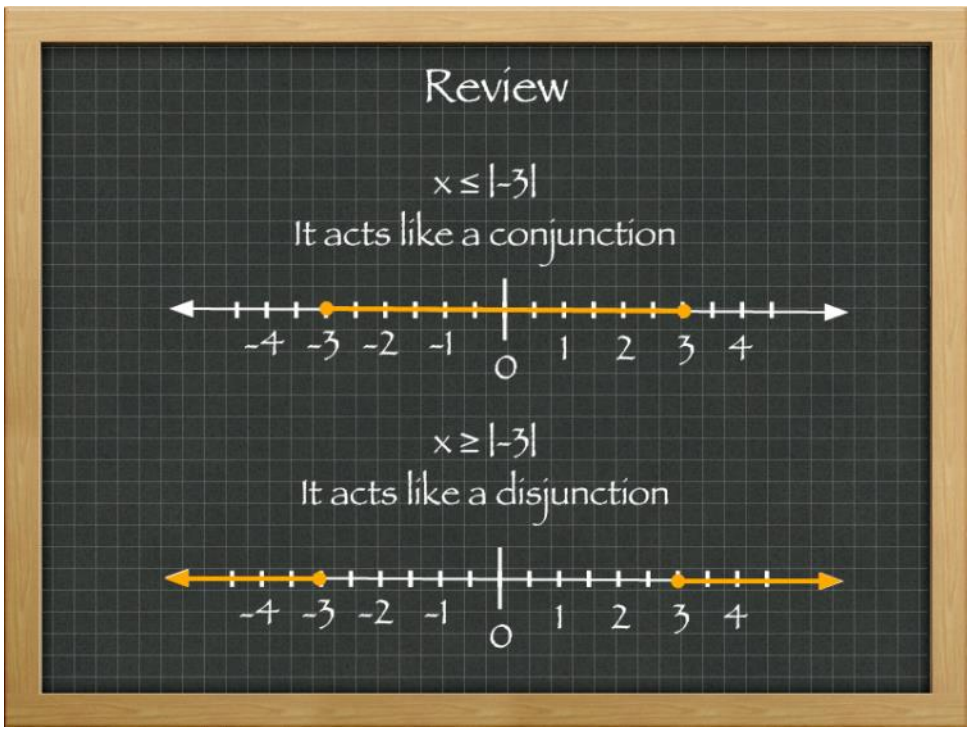
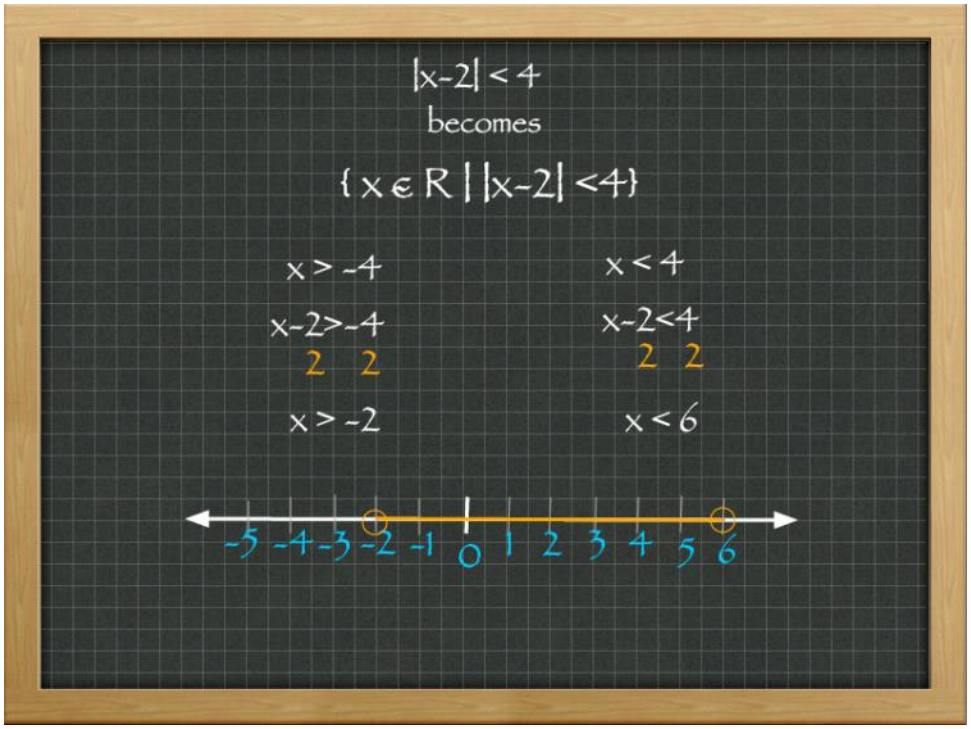
Slides	Notes
	
	Now we will blend together inequalities with absolute values to see how those turn out. When we graph a less than and equal to, you end up with the same type of graph that you had when you learned about conjunctions. What about when it is a greater than or equal to? Then you end up with the equivalent of a disjunction.
	Now we will work on a starting point that uses set builder notation and work

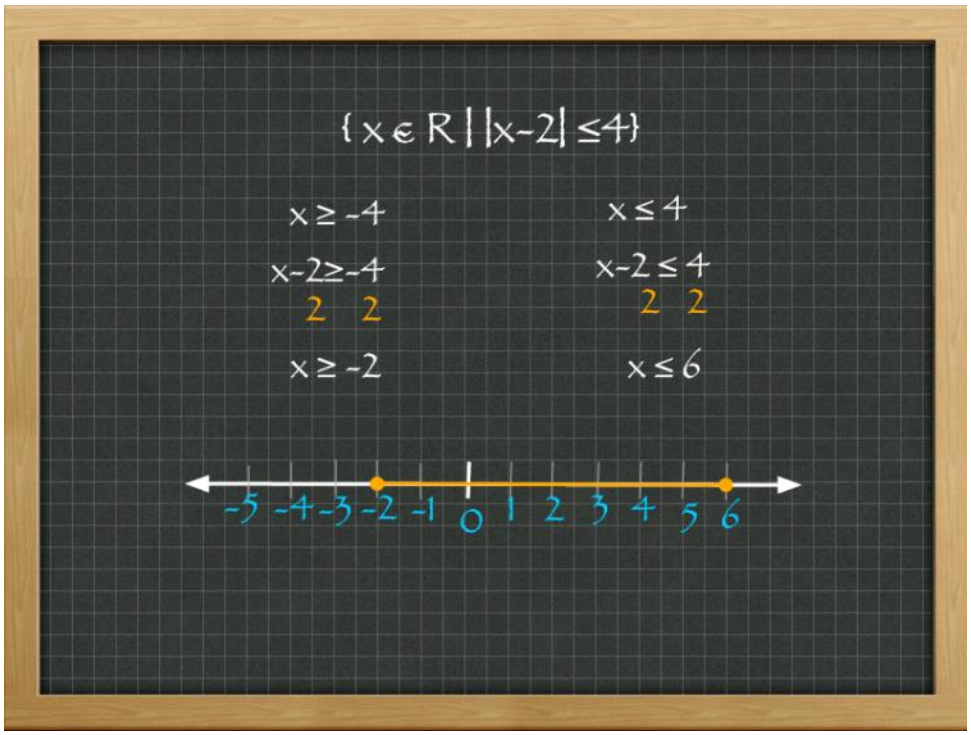


with inequalities where you must solve for x.

The absolute value of x - 2 is less than 4 becomes the set whose members x are real numbers, such that the absolute value of x-2 is less than 4.

We will work with the values for x greater than and less than 4 since this will end up being a conjunction. We will solve for x in both cases.

Remember that less than inequalities in absolute value are conjunctions. So you will have a minimum that corresponds to your negative value and a maximum that corresponds to your positive value. Each with a hallow circle since our original statement was not a less than or equal to, but just a less than.



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