

NPTEL  
NPTEL ONLINE COURSE  
Discrete Mathematics  
Logic  
Logical Equivalence - Part 1  
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So look at this particular truthtable. Do you see these two columns? It's clear that these two columns are exactly the same. Think about it. What does this signify? It simply signifies that look at the columns and the corresponding headers of these columns. They are the Boolean expressions. The fact that for every possible input that you can think of these two Boolean expressions agree. By agree I mean if he is zero, he is zero. That is one, this is one. Right, which means they both are equivalent. Right. So this is what we mean by equivalence of two Boolean expressions. We say they are logically the same.

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Founded by  
Department of Higher Education  
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