

an argument is
valid when it is
impossible for its
premises to be
true and its
conclusion false

an argument is
sound when it is
valid and all of its
premises are true

Here is a fourth way to see that the argument is valid. If you think about it, this argument is all based on two sentences: 'Notre Dame is in Indiana' and 'Notre Dame is in Ohio.' Either of those sentences could be true or false; so that gives us four possibilities (true/true, true/false, false/true, false/false). We can represent those possibilities on a kind of chart called a 'truth table.'

First
premise

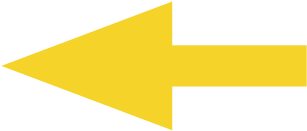
Second
premise

Notre Dame is in Indiana	Notre Dame is in Ohio	Notre Dame is in Ohio or Notre Dame is in Indiana	Notre Dame is not in Ohio
true	true	true	false
true	false	true	true
false	true	true	false
false	false	false	true

Each row represents a possibility. How many rows make both of the premises true? Just the second one. And the conclusion is true in that row. So, we know that if the premises are true, the conclusion must be as well.

1. Either Notre Dame is in Indiana or Notre Dame is in Ohio.
 2. Notre Dame is not in Ohio.
-

C. Notre Dame is in Indiana. (1,2)



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calculated truth table.

Indian and Native Danes in Ohio. Either

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