

# Showing an Implication is False

## Reference:

Hub, A., & Dawkins, P. C. (2018). On the construction of set-based meanings for the truth of mathematical conditionals. *The Journal of Mathematical Behavior*, 50, 90-102.

Explain why the implication assigned to your group.<sup>1</sup>

<b>Hexagons</b>	<i>If a number is not a multiple of 6, then it is not a multiple of 3.</i>
<b>Triangles</b>	<i>If a number is a multiple of 3, then it is a multiple of 6.</i>
<b>Rectangles</b>	<i>If a triangle is not acute, then it is obtuse.</i>
<b>Squares</b>	<i>If a quadrilateral is a rectangle, then it is a square.</i>
<b>Circles</b>	<i>If a triangle is not obtuse, then it is acute.</i>

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<sup>1</sup>The shapes listed in column one refer to the five student groups in an introductory proof course (e.g., “Hexagons” refers to “Group 1”).