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Discrete Mathematics
Logic
Introduction to Double Implication
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You do encounter sentences such as these; necessary and sufficient condition, implies and implied by, if and only-if they are all perfectly sounding English statements but what exactly do they mean? In fact, they all mean the same. And let me tell you what exactly they mean. They simply mean whenever you are given two statements namely P and Q if P implies Q and Q implies P then you say P implies and implied by Q. P is necessary for Q. P is necessary and sufficient for Q and we also say P if and only-if Q. We will see more of this very soon.

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