Not every error in a proof is a false statement. Sometimes every line is true, but the lines don’t directly follow the previous lines. All that’s needed to fix the error is more detail or explanation. Explain where the error is in the following proof and then fix it.

 Prove: If $n^{2}$ is not divisible by 3, then $n$ is not divisible by 3.

 Proof: If $n^{2}$ is not divisible by 3, then $n^{2}$ does not equal $3m$ for any integer $m$. Hence, $n$ does equal $3l$ for any integer $l$. Therefore, $n$ is not divisible by 3.