
Class #6

More proofs

Exercise

- Prove: For every point P there exist at least two lines through P .



Exercise 2

- What is wrong with the following proof for homework problem 3?
 - Let l be any line. By Axiom ***I-3***, there exist three distinct points R, S, T that do not all lie on the same line. By ***I-2***, there exist two points R, S lying on l . Since T does not lie on the same line as R, S , we conclude that T does not lie on l .
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If H then C ($H \Rightarrow C$)

■ CONTRAPOSITIVE

- If not C then not H ($\sim C \Rightarrow \sim H$)
- Logically equivalent to $H \Rightarrow C$

■ CONVERSE

- If C then H ($C \Rightarrow H$)
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Exercise 3: State the converse and contrapositive of Proposition 2.1.

- Proposition 2.1: If l and m are distinct lines that are not parallel, then l and m have a unique point in common.
 - Which one of the two can you prove?
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