Geometry Journal: Logical Reasoning
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NAME:_____

1. Explain the difference between inductive and deductive reasoning.

2. Explain why you must prove a theorem for every case but you can disprove it by giving only one counterexample.

Reasoning from patterns based on analysis of specific cases is called inductive reasoning. Such reasoning may lead to an if-then statement that is plausible. However, deductive reasoning involves reasoning from facts, definitions, and accepted properties to new statements using principles of logic.

[1] Correct deductive reasoning leads to conclusions that are logically necessary, not just plausible.

[2] A theorem must be true for every case. So if it is not true for one case, it is not true.