PLANNING A PROOF Guided Notes

1. A theorem is a statement that has been proved on the basis of other known theorems and generally accepted statements known as ______________. Axioms are statements that are accepted without _____________. A theorem is a ____________ consequence of axioms.

2. A __________ is a set of logical arguments used to establish the ______ of a theorem. The two types of proofs are ___________ and ______________ proofs. In a direct proof, the statement to be proved is considered ___________. In an indirect proof, the statement to be proved is assumed _____________.

3. The most commonly used method of proving a theorem is _______________.

4. A two column proof has __________ columns. The first column contains ___________ and the second column contains _______________.

5. The first step in planning a proof is to write the _____________ of the theorem to be proved.

6. The statement that has been proved is written in the _____________ step of the proof.

7. Each statement in the proof must have supporting ____________ in the proof.