

## 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.