

## **Step-by-Step Instructions for Writing Two-Column Proofs**

**1. Read the problem over carefully.** Write down the information that is given to you because it will help you begin the problem. Also, make note of the conclusion to be proved because that is the final step of your proof. This step helps reinforce what the problem is asking you to do and gives you the first and last steps of your proof.

**2. Draw an illustration** of the problem to help you visualize what is given and what you want to prove. Oftentimes, a diagram has already been drawn for you, but if not, make sure you draw an accurate illustration of the problem. Include marks that will help you see congruent angles, congruent segments, parallel lines, or other important details if necessary.

**3. Use the information given** to help you deduce the preliminary steps of your proof. Every step must be shown, regardless of how trivial it appears to be. Beginning your proof with a good first step is essential to arriving at a correct **conclusion**.

**4. Use the conclusion, or argument to be proven,** to help guide the statements you make. Remember to **support your statements with reasons**, which can include definitions, postulates, or theorems.

**5. Once you have arrived at your solution,** you may choose to read through the two-column proof you've written to be assured that each step has a reason. This helps emphasize the clarity and effectiveness of your argument.

The steps above will help guide you through the rest of the geometry sections you encounter. While they may seem painful and frustrating at times, two-column proofs are extremely helpful because they break things down that seem trivial or intuitive into steps that answer the question "why."

*Borrowed from: [http://www.wyzant.com/help/math/geometry/introduction/two\\_column\\_proofs](http://www.wyzant.com/help/math/geometry/introduction/two_column_proofs)*