

# BALANCE POW

For this problem, provide the following:

## **I. PROBLEM STATEMENT**

Write a concise statement of the problem. Write clearly enough so that someone picking up your paper could understand exactly what you were asked to do.

## **II. PLAN**

Tell what you did to prepare to solve the problem. How did the problem seem to you when you first read it? Consider what you are asked to find, what you know, what you need to know, and what strategies you can use. Is this problem like any others you've done? Before you begin to work on the problem, make a guess at the answer to the problem.

## **III. WORK**

Explain in detail what you did to solve the problem. Use charts and graphs where appropriate. Tell what worked, what didn't work, and what you did when you got stuck. Did you get help from anyone? What kind of help?

## **IV. ANSWER**

State your answer(s) to the problem. Does the answer make sense? Could there be other correct answers? Compare your final answer with your original guess. What did you learn from this problem that could help you solve other problems?

# A FAIR COIN?

Of seven bars of gold, which all look alike, five have the same weight while two are slightly heavier.

Using a balance of two pans, without weights, how many operations are necessary to tell which are the two heavy bars?