Today you will take part in a mathematics problem-solving assessment. This means that you will be given one problem to solve. **Please show all your work.** Your paper will be read and scored by another person—someone other than your teacher. Please be sure to make it clear to the reader of your paper how you solved the problem and what you were thinking. The person who will read your paper will be looking mainly for these things:

1. How well you **understand the problem** and the kind of math you use.
2. How well you can correctly use **mathematics**.
3. How well you can use **problem-solving strategies and good reasoning.**
4. How well you can **communicate** your mathematical ideas and your solution.

Your paper will receive a score for each of these. You will do all your work here in class on the paper provided and you may use manipulatives to work on your problem.

**Guide to Completing the Problem**

1. Conceptual understanding of the problem

* I used diagrams, pictures, and symbols to explain my work.
* I used all the important information to correctly solve the problem
* I have thought about the problem carefully and feel as if I know what I'm talking about

1. Procedural knowledge

* I used appropriate mathematical computations, terms, and formulas.
* I correctly solved and checked my solution to the problem.
* I used mathematical ideas and language precisely.
* I checked my answer for correctness.

1. Problem-solving skills & strategies

* I looked for other possible ways to solve the problem.
* I used problem solving skills/strategies that showed some good reasoning.
* My work is clear and organized.

1. Communication

* I communicated clearly and effectively to the reader.
* In my solution, one step seems to flow to the next.
* I clearly used mathematics vocabulary and terminology.
* My sentences make sense and there are no words left out.

<https://www.nap.edu/read/2235/chapter/6#75>