Welcome to The Facing History School

Prepare for Problem-Solving in Algebra

1. Identify the problem
2. Identify important information and create ideas
3. Choose a problem Solving Strategy
4. Solve the problem using your strategy
5. Check your answer
6. Reflect

If correct

Name: ____________________
Welcome to The Facing History School

At The Facing History School, we employ students in critical thinking through inquiry and problem-solving. In preparation for your success in algebra, we are asking you to engage in the following problems, we call tasks. These tasks will give you an idea of our problem-solving process while practicing math skills needed for next year.

Please complete **ONLY 2 tasks**. Along with the tasks, you are asked to provide details of your work and thinking through writing. We are asking you to explain the following:

**WHAT** are you thinking when you are solving the problem?
**HOW** are you going to solve the problem? (strategy)
**WHY** are you solving the problem using that particular strategy? (provide math evidence when you say: because I like it, it is easier, it is faster)
**HOW** do you know you are correct?
**WHAT** could you have done differently next time?

You will be asked these questions at the end of each task. Please be as detailed as possible.

**TASK #1 - Pyramid**

**TASK #2 - Balancing Things Out**

**TASK #3 - Missing Info**

**TASK #4 - Patterns**
<table>
<thead>
<tr>
<th>Rubric</th>
<th>Problem Solving</th>
<th>Communication</th>
<th>Neatness and Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Good</strong></td>
<td>I can provide an explanation of the strategies I use to solve math problems.</td>
<td>Most of my explanations are clear and explain my mathematical thinking in an organized and detailed way.</td>
<td>The work is presented in a neat and organized fashion that is usually easy to read.</td>
</tr>
<tr>
<td><strong>Competent</strong></td>
<td>I can provide some explanation of the strategies I use to solve math problems.</td>
<td>I sometimes clearly explain my mathematical thinking in an organized and detailed way.</td>
<td>The work is presented in an organized fashion but may be hard to read at times.</td>
</tr>
<tr>
<td><strong>Needs Revision</strong></td>
<td>I can provide an explanation of the strategies I use to solve math problems.</td>
<td>I rarely explain my mathematical thinking in an organized and detailed way.</td>
<td>The work appears sloppy and unorganized. It is hard to know what information goes together.</td>
</tr>
</tbody>
</table>