



## TOOL // Math Problem Solving Placemat

### What is the tool?

Three-Part Math Lesson Poster

### What is it used for?

The 11" x 14" poster/placemat is used by groups of students to record their process for solving problems using the three-part approach.

The poster can be used for peer feedback and teacher assessment for learning.

The poster was adapted by Terry Wielowieyski as part of an AIMS project.

### How do you use it?

Each pair or small group of students uses the placemat to record their process and thinking as they solve problems.

Each member of the group has a different colour marker. All members must contribute so that all are accountable.

The different colour markers allow the teacher to assess each individual student's work. As well, markers discourage erasing thinking.

The template guides the students through the process. In the top box, students record the title of the problem. They record important information in the next box. In a large box on the left, they record their work and thinking.

In the next section, the students record their final statement. The last box is a final success checklist, i.e. *have we justified or verified our work*.

The poster has space for teacher/peer notes.

When the groups finish solving their problems, each student is given two stickies and asked to do a gallery walk, identifying what they see and offering suggestions. This activity facilitates sharing different ways to approach a problem in the reflection Congress.

This tool may be part of the summative math assessment when students have to solve a problem independently, while serving to support struggling students.

Title of the problem:

Spring concert

Important information from the problem

There are 2 rows of  
will there be

I liked how  
you showed  
dots  
to get  
your  
answer

how they got  
the answer  
got there

chairs.

Work:

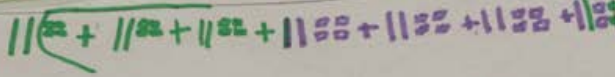
1 = 1 chair



168

$24 \times 7 = 168$

$24 + 24 + 24 + 24 + 24 + 24 + 24 = 168$



Ones = 28  
Tens = 140

$140 + 28 = 168$   
There will be more  
chairs than needed.

$24 \times 3 = 72 + 24 \times 3 = 72$  so  $72 + 72 = 144$   
but it's  $24 \times 3 + 24 \times 3$  so that =  $24 \times 6$   
So I will add another 24. which is  
 $144 + 24 = 168$ .

168 parents altogether will be  
enough.

There will be 168 chairs  
in the gym altogether.

168 parents will be  
able to fit in the gym  
because there is 168 chairs.  
There will be enough chairs.

- Final Check:
- We have shown our strategy.
  - We have justified our answer with our work.
  - our strategy was effective.
  - We have given our answer in a final statement/sentences.

Teacher/peer

They had  
a lot of  
detail

I think it  
stands out because  
they used a lot

I think this  
stands out because  
they took the  
time and

I like how you  
used base ten  
blocks

**Important Information From the Problem:**

**WIK (What I Know from the problem)**

**WINK(What I Need to Know to answer the problem)**

**Work/Thinking (pictures, numbers and words)**

**Final Statement/Sentence**

**Final Check**

**We have shown our strategy.**

**Our work is organized and easy to follow**

**We have justified our answer with our work.**

**Our answer makes sense.**

**We have a final statement that connects to the question.**

**Teacher/Peer Notes**