Halloween Problem Solving Project
Algebra I

Name:

Solve each of the following problems. You must show all your work! Choose ONE of the problems to explain in WRITING (follow specific format) on the stencil provided.

Problems: Solve and Graph each Absolute Value Inequality.

1) $4 + |x + 2| > 7$

2) $|3x + 5| \leq 4$

3) $4|5 - t| \geq 20$

4) $|2x - 7| - 1 > 0$

5) $|5t - 4| \leq 16$

6) $|4x + 1| > 11$

Problem Solving Format

You will need to write your response in this structure to earn full credit. (You will need to show your graph also). Please refer to the rubric for additional explanation.

Start your paragraph with:

"The problem I am trying to solve is....."

"The method I choose to solve the problem is......" (what steps will you take to solve this problem?)

You must use transition words with your response (i.e also, next, in addition, therefore, first, secondly, etc.)

Finally you need to conclude your paragraph with:

"In conclusion, I found....."

"STUDENT FRIENDLY" Problem Solving SCORING RUBRIC

Score Level (How many points do you earn?)	MATHEMATICAL KNOWLEDGE: (Do you know it?)	STRATEGIC KNOWLEDGE: (How do you plan?)	EXPLANATION: (Can you explain it?)
5 ✓ 4	♦ I get the right answer, and I label it correctly. ♦ I use math terms correctly to show I understand how math works. ♦ I compute with no errors.	♦ I find all the important parts of the problem, and I know how they go together. ♦ I show all the steps I use to solve the problem. ♦ I explain any work I do in my head or with a calculator. ♦ I completely show pictures, diagrams, models or computation if I use them in my plan.	♦ I write what I did and why I did it. ♦ If I use a drawing, I can explain all of it in writing.
3	♦ I use most math terms correctly. ♦ I make minor errors in computation.	♦ I find most of the important parts of the problem. ♦ I show a reasonable plan and most of the steps I use to solve the problem.	♦ I write mostly about what I did. ♦ I write a little about why I did it. ♦ If I use a drawing, I can explain most of it in writing.
2	♦ I know how to do parts of the problem, but I make major errors in computation and get a wrong answer. ♦ I give a wrong answer or only part of the answer.	♦ I find some of the important parts of the problem. ♦ I show some of the steps, but my plan is not clear.	♦ I write some about what I did or why I did it but not both. ♦ If I use a drawing, I can explain some of it in writing.
1	♦ I try to do the problem, but I don't understand it.	♦ I find almost no important parts of the problem. ♦ I show a plan that is not reasonable. ♦ I show almost none of the steps I use to solve the problem. ♦ I may include unnecessary information.	♦ I write or draw something that doesn't go with my answer. ♦ I write an answer that is not clear.
0	♦ I don't try to answer the problem.	♦ I don't show a plan.	♦ I don't explain anything in writing.

5 pts. for creativity

20 pts. total