



The Washington State Math Council's High School Competition

**Primary Importance!**

The 2012 Team Project

**SCORING GUIDE for the 2012 WSMC Team Project**

Your investigation will result in three "products." The first will be a written report. The second will be a very brief presentation before an audience and, potentially, a panel of judges. The third will be a display of some kind that you will use to summarize your findings for students, judges and others who may come to you and ask you questions about your work. In all three you will need to explain your findings and conclusions, explain the model(s) you used to make your predictions, and justify your choices about the mathematics you used. In the final evaluation, the report will account for 70% of the total points. Half of these points will be determined by the accuracy of your predictions and half by the quality of the report. The presentation will account for 15% and the display will account for the remaining 15%. Below you will find explanations of these three products and the ways in which they will be evaluated. The report, the presentation, and the display will be evaluated according to your performance on the criteria shown below. You will receive 0 - 4 points on each of these criteria. (Points are double in the category, "Mathematics.") When you meet expectations for a criterion, you will be given 3 points for that criterion. Four points will be given to those who, in the judgment of the evaluators, exceed expectations. Zero points will be awarded if there is no effective response.

**I. The Report (70%)** *The entire report should have ten pages or fewer.* The pages should be numbered and have one inch margins all around. Please use a legible font and do not use a font smaller than 12 for the text of the report.

**Addressing the problem 12 points**

4 points	<b>Address the problem that was posed</b>
	The problem you address in your report is the one that was given. It has not been substantially modified.
4 points	<b>Restate the problem in your context</b>
	The problem is clearly and succinctly restated in the report's introduction so that the reader will know that you understood the problem.
4 points	<b>Communicate your plan for addressing the problem</b>
	A clear and succinct plan for addressing the problem is outlined following your restatement of the problem. The plan should follow a logical progression. For example, "In order to address the problem we needed to know $x$ . Therefore we did $y$ ." etc.

**Data 12 points**

4 points	<b>Data sources must be clearly identified and cited</b>
	You clearly identify the sources of data you used to address the problem. (All must come from within the Web site: <a href="http://www.nationalpolls.com/">http://www.nationalpolls.com/</a> ) Your citations should allow an informed and competent reader to find the same information.
4 points	<b>Data sources must be appropriate and reliable</b>
	The data sources you chose to use would be acceptable to an "expert"* in the field. Explain why you used the sources you selected.
4 points	<b>Data sources must be sufficient</b>
	You give evidence to show that you examined a sufficient amount of data in order to understand trends and make reasoned predictions.

**Mathematics 32 points**

8 points	<b>The mathematics you use must be appropriate</b>
	You have selected mathematical tools (algorithms, techniques, procedures, models, etc.) that have the potential to address the problem effectively. A K-12 math "expert"* would probably make the same selection.
8 points	<b>The mathematics you use must be clearly justified</b>
	You have given a clear and succinct justification for substantial choices among mathematical tools (e.g., You <u>don't</u>



## II. The Display (15%)

On the day of the contest, you will set up and "staff" a display where you will talk with people about your investigation. You should have some sort of visual display that summarizes the highlights of your investigation. This, however, is only part of the process. More importantly, you should be prepared to summarize the results generally and to answer specific questions from judges and students about your work. These questions can cover any aspect of the work you have done, including details from the report and will allow the judges to continue their evaluation of the investigation. Your display will be set up in an area that is available to all of the participants in the contest and so you may also get questions from others who are interested in your work. At least one member of the team must be present at all times except during the presentation.

**The Display**      **12 points.**      **Your display and the people supporting it must:**

4 points	<b>Explain your <u>interpretation</u> of the problem</b> Your display and your verbal explanation should allow a competent and interested reader or listener to understand the basis of the problem.
4 points	<b>Explain and justify the <u>approach</u> you took</b> Your display and your verbal explanation should allow a competent and interested reader or listener to understand your mathematical procedure and why you selected your major mathematical tool and techniques.
4 points	<b>Explain and justify your <u>conclusions</u></b> Your display and your verbal explanation should allow a competent and interested reader or listener to understand your solution to the problem that was posed.

	<b>Total for Display</b>
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## III. The Presentation (15%)

On the day of the contest, your team will give a very brief (approximately five minutes) presentation summarizing your investigation. The evaluation of the presentation will focus on your communication skills more than on the quality of the mathematics, which receives primary emphasis in the report and during the display.

**The Presentation**      **24 points.**      **Your presentation must:**

4 points	<b>Be informative.</b> Your presentation should include sufficient information so as to enable listeners to understand what is important about this problem and your conclusion or solution to the problem.
4 points	<b>Be clear.</b> The style, structure, and sequence of your presentation should enable listeners to easily understand your work on the problem.
4 points	<b>Be convincing.</b> The style, structure, and sequence of your presentation should convince listeners that you used mathematics effectively to understand and address the problem.
4 points	<b>Be compelling.</b> The style, structure, and sequence of your presentation should keep listeners engaged, involved, and interested.
4 points	<b>Be succinct.</b> Your presentation must be completed within the time allowed.
4 points	<b>Be responsive to questions.</b> Be prepared to answer reasonable questions from the audience or judges.

	<b>Total for Presentation</b>
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	<b>Grand Total</b>
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**Comments:**

\* An “expert” is someone who is very familiar with the context of this question and who has a very competent and informed grasp of k-12 mathematics.

\*\* You should have the report proof read by an expert. How about an English teacher?