

## **MATH 488: Rubrics for Hilbert / Millennium problem paper**

Each item gets a score of 0 to 1. The sum of all item scores is your overall grade.

### **Introduction to the problem:**

1. Is a complete, formal statement of the problem given? \_\_\_\_\_
2. How well is its meaning explained? \_\_\_\_\_
3. Is it clear where/why it arises and is of interest? \_\_\_\_\_
4. Is the related math context and background explained? \_\_\_\_\_

### **Discussion of solution efforts:**

5. Is an overview/ summary of different solution efforts discussed? \_\_\_\_\_
6. Is (at least) one solution effort discussed in depth? \_\_\_\_\_
7. Is the “in-depth” discussion sufficiently detailed mathematically? \_\_\_\_\_
8. Is it sufficiently clear? \_\_\_\_\_
9. Is it sufficiently complete? \_\_\_\_\_

### **Other items:**

10. Is the impact of the problem/solution efforts on other developments discussed? \_\_\_\_\_
11. Does the paper include needed visuals (sketches, graphs, tables)? \_\_\_\_\_
12. Does it include examples or explanation of key technical items? \_\_\_\_\_  
(e.g., definitions, axioms, lemmas, theorems, etc.)
13. Is the abstract appropriate and well-written? \_\_\_\_\_
14. Does the paper cite and list needed references? \_\_\_\_\_
15. Are the spelling, grammar, and punctuation correct throughout? \_\_\_\_\_