

## Math 219 Final Paper: 30 points

**Rough Draft Due: Friday, April 18th**

**Final Copy Due: Friday, May 2nd**

**What is Problem Solving? (10 points)** The first section of your paper concerns the identification of problem solving. You should address the following points in a clear and organized manner.

- According to *Thinking Mathematically* by Mason et al. how does one identify problem solving?
- Read the NCTM *Principals and Standards* handout on problem solving in the middle grades. From this, how do you think NCTM identifies problem solving?
- Compare and contrast the two views of problem solving described above.
- How do you identify problem solving? In particular, ask yourself: Is problem solving identified by the question, the solution, both or neither?
- In light of your discussion above:
  - (a) What would be examples of problem solving? Provide reasoning to support your view.
  - (b) Give examples of problems that some may think of as problem solving, but you do not. Provide reasoning to support your view.

**Problem Solving and You (10 points)** The second section of your paper concerns your attitudes and abilities in regards to problem solving. You should address the following points in a clear and organized manner.

- Describe your personal method of problem solving. Cite actual examples from pages of your journal to support your claims.
- Identify at least two of your strengths and two of your weaknesses as a problem solver. Cite actual examples from pages of your journal to support your claims.
- Identify a weakness and state how you could attempt to improve your problem solving abilities in this area.

**Conclusion (5 points)** In light of the discussions above, explain how you might teach problem solving to future students.

**Format and Style Guidelines (5 points)**

- Your paper should be typed in a 12 point font, double spaced, with 1 inch margins. The length of the paper should be around 6 pages including pictures and examples. Feel free to use headings to help organize your paper.