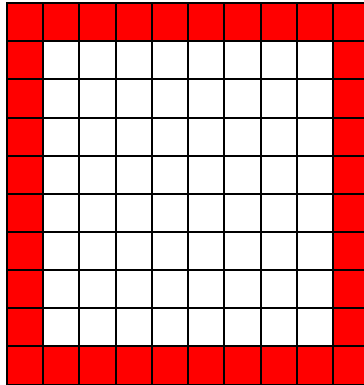


**Math 391 First Meeting**  
**Assignments to Be Completed Prior to Second Meeting**

- a. **Classroom observation:** For three of the class sessions you observe prior to the next meeting at CSUN, describe the teacher's apparent objective for the session and write about what the students seem to understand about the topic. Use evidence such as what you heard students say or saw them write (be sure to write down this evidence, *exactly as the student(s) said or wrote it*). Describe what the students are struggling with and give evidence. Write about what you would do in the next session.
  
- b. **CSUN mathematics courses:** Reflect on your own math courses at CSUN and give a specific example of some mathematics you have learned in college (but not in high school) that will be helpful to you when you teach the same topic that you observed in one of the class sessions.
  
- c. **Reading:** Read the Foreword, the Introduction, and Chapter 1 in your book (*Connecting Mathematical Ideas* by Jo Boaler and Cathy Humphreys). Write a brief summary (no more than one page) of these texts. Your summary should be focused on what you think are the most salient and interesting points, and express your overall opinion of the texts.

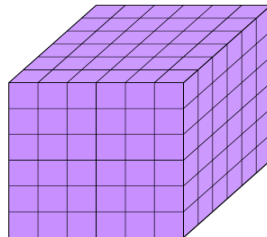
- d. **Interesting Problem:** Given below a  $10 \times 10$  grid with its border colored. Without any counting, quickly decide how many red tiles we need for the border. Then carefully explain how you got your answer (if you have more than one method, just use the first one that came into your mind).



Then explain the solution of the same problem using your method from the  $10 \times 10$  grid for a

- $6 \times 6$  grid
- $255 \times 255$  grid
- $5 \times 10$  grid
- $255 \times 300$  grid
- $N \times N$  grid
- $N \times M$  grid

Now imagine a  $6 \times 6 \times 6$  cube whose faces have been painted. Using the same method from the previous parts, explain how many of the 216 unit cubes got any paint.



And lastly, explain the solution of the same problem using a

- $5 \times 5 \times 5$  cube
- $30 \times 30 \times 30$  cube
- $5 \times 3 \times 2$  box
- $25 \times 5 \times 30$  box
- $N \times N \times N$  box
- $L \times W \times H$  box