Make a New Puzzle

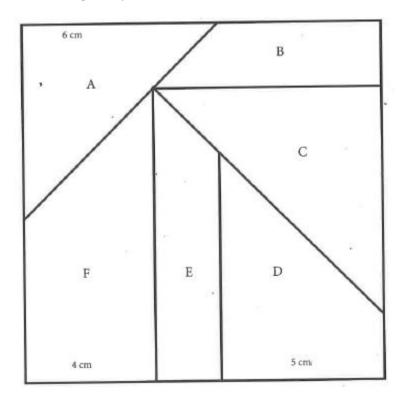
You will be working in assigned groups of six. Each group will have a set of puzzle pieces in an envelope that when put together will look like the puzzle below.

- 1. Each group should assemble the puzzle so that it looks like the one below.
- 2. Each person in the group should then select one piece and should make their piece bigger with the following goal in mind:

The goal is to make a larger puzzle the same shape as the puzzle below, so that each edge of a piece that measures 4 cm in the puzzle below will measure 6 cm in the new puzzle.

Each person should individually enlarge their own piece without discussing strategy with their group members. There should be total silence – no talking at all.

3. When everyone in the group has completed making their enlargement, as a group try to put the pieces together to form the larger puzzle. If any pieces of the enlarged puzzle do not fit, discuss the strategies used to enlarge the piece.



Adapted from Make a New Puzzle from Classroom Activities for Making Sense of Fractions, Ratios, and Proportions, 2002 Yearbook, NCTM. Also see a Perplexing Puzzle, NC Department of Public Instruction for a similar activity.