This figure is an F pentomino, scaled up by a factor of 2. The following puzzles are a challenge to the whole class.

1. It is difficult, but possible to cover the figure with pentominoes. Try to do it.
2. How many pentominoes did it take to cover it?
3. By doubling the dimensions of the other pentominoes, you can create doubled pentomino puzzles. Altogether, ten of the twelve doubled pentomino puzzles can be solved with pentominoes from one set.
4. All tripled pentomino puzzles can be solved with pentominoes from one set. (In fact all can be solved without using the pentomino that is being tripled.)
5. How many pentominoes does it take to cover a tripled pentomino puzzle?