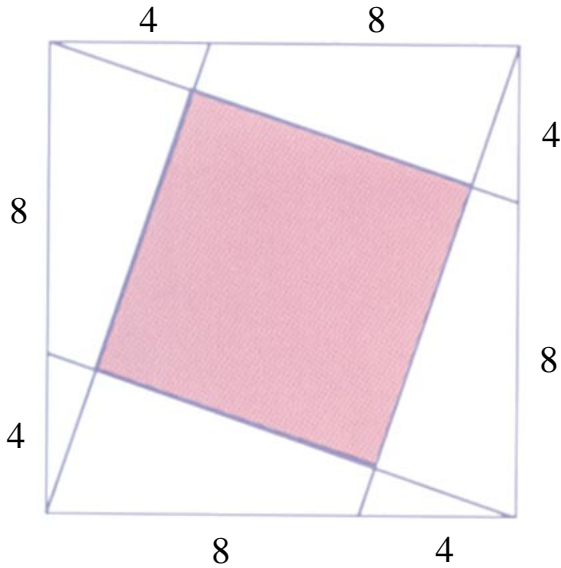


# The Slanted Square

## Problem-of-the-Week

### The Problem

Find the area of the shaded square.



### Strategies and Hints

1. Work with just the lower triangle. Identify three similar triangles.
2. Which length do you need to know to find the solution to the problem?
3. Find the lengths of the 8 segments in the lower triangle.
4. The problem can be solved without knowing the length of the side of the shaded square. Trace the original figure and divide the shaded square into 4 equal squares. Then place the figure on a 4-by-4 grid so that the shaded square is centered in the grid.
5. What is the ratio of the area of the shaded square to the area of the original 12-by-12 square?

