

The Nine-Part Triangle

Problem-of-the-Week

The Problem

This right triangle has been divided into 9 parts of equal area. How was this division accomplished?



Strategies and Hints

1. The triangular figure shows you how to mark off the left leg of the triangle. Describe how this leg is subdivided into parts.
2. The circular figures gives you some clues as to how the top leg of the right triangle should be subdivided. Describe how the circular figure is constructed.
3. Three different circles are used in this problem. Make a construction showing these circles.
4. After you have completed the problem, find a different way to divide the same triangle into 9 equal parts. Hint: This time the left leg is not subdivided into 3 equal parts.

