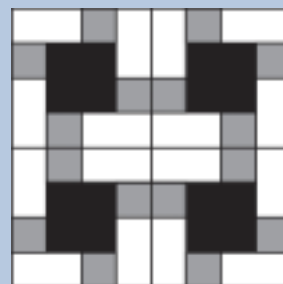




Percent Tile

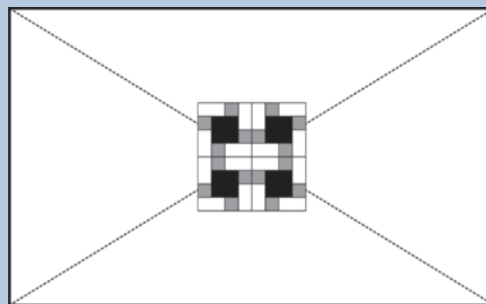
The following tile pattern is composed of three different tiles:

- Gray tiles are 6 in. \times 6 in.
- Black tiles are 1 ft. \times 1 ft.
- White tiles are 6 in. \times 1 ft.



This tile pattern is used to cover a rectangular room that is 11 ft. \times 18 ft. An installer will start by finding the center of the floor, using diagonal lines, and then begin tiling from the center of the floor, as shown below. Assume that the installer can cut tiles and use any pieces to complete the pattern.

1. How many of each color of tile will be used to cover the entire floor?
2. What percentage of the room is covered with each color of tile? Show all your work, and explain your thinking.



We encourage classroom teachers to pose this problem to your students and share their creative solutions. Please include a brief analysis of the specific strategy; examples of original student work or high-quality digital images; and your name, the school name and address, and your e-mail address. E-mail submissions to **Edward S. Mooney** at mooney@ilstu.edu, or send to him at Illinois State University, Campus Box 4520, Normal, IL 61790-4520, by **March 15, 2011**. Published solutions will be credited.

(Solutions on page 383)

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