## solve it!

little problems with big solutions

## Penny Drop

To play the Penny Drop game, drop a penny from a height of 4 inches over a target. If more than $1 / 2$ the penny is inside the circle labeled 50 , you score 50 points. You need to add a 25-point region to the target so that the probability of scoring 25 points is double the probability of scoring 50 points. Experiment dropping pennies from a 4-inch height on your new target and record your results. Once you have decided on a region or regions, write an explanation of how and why you chose that area.


Download one of the free apps for your smartphone. Then scan this tag to access two this tag to access two
additional templates online at www.nctm.org/mtms011.
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 students' work or highquality digital images; and your name, the school name and address, and your e-mail address. E-mail submissions to Sherry Bair at bair@ilstu.edu, or send to her at Illinois State University, Campus Box 4520, Normal, IL 61790-4520, by May 1, 2012. Published solutions will be credited.


Note: Two templates are provided online: One includes a grid, and the other has no grid. Choose the one that you believe is appropriate for your students to help determine the areas of the regions. Areas may be helpful in the students' discussion of probabilities.
solve it! solutions
(Continued from p. 319)
Answers will vary.

