Commentary

Venus, XXV

1. **(1/2)** The problem is for students to pick the largest shaded area, disregarding the size of the denominator of the fractions shown. This is an intuitive introduction to smaller denominators representing larger unit fractions.

2. **(Pencil: 27¢; paste: 53¢; scissors: 93¢; ruler: 65¢)** Students have probably heard of adding tax to the cost of a purchase. If not, this would make an interesting introduction, including where some of the tax money goes.

3. **($3)** The problem is not difficult, if students know about dollars. In school, most of the concentration is on coins in the first grade, although there is no reason for students not to be introduced to dollars also. If so, the problem is essentially 5 – 2 = 3, ignoring the decimal points.

4. **(6)** This is an enjoyable problem for students. They might act it out, and keep a record of all the ways they can find. Organizing their work (e.g., using the smaller numbers in order in the first house) will help them be successful.

5. **(3)** Students can solve this problem easily by *guess-check-revise*. If so, they'll simply guess the starting number and revise as appropriate. Another approach is to try to reason logically, knowing that the missing number, when combined with 6 – 7, leaves 2.

6. **(black)** Students who do not have an intuitive sense of this probability problem would profit from an experiment with 6 objects that are identical, except for color, to 3 others objects. They can be placed in a paper bag, out of sight, and the experiment tried 20 times. The students should be convinced by such an investigation that black will come up more often.