Commentary

Venus, X

- 1. (12) Students need to include Jill with her five friends to make six children. Drawing a picture of each child, and 2 cupcakes per child, will help find the answer by counting.
- 2. (25¢, 10¢, 5¢, 1¢, 1¢) A good strategy is for students to start with the largest coin they can, and work from that. In this case, start with a quarter because 2 quarters is too much. Then add a dime -- two dimes are too much. Continue in this fashion.
- 3. (Saturday) If students are unfamiliar with a calendar, they might not know to place a 1 in the box under Thursday, and a 2 in the next box, and so on. Practice problems like this could involve looking at a real calendar for the present month, and discussing questions similar to these, to familiarize a child with the way a calendar is set up.
- 4. (First grade) The Kindergarten class has 28 students, while the first grade class has 29 students.
- 5. (10 squares) Each window pane is a small square, and the window frame itself counts also. Therefore each window actually has 5 squares showing. The two windows together would therefore have 10 squares.
- 6. (accept any answer from 6 to 10, (8 to be exact)) Students with good visual estimation skills or accurate drawings skills might find a reasonable answer without using a real object such as a plate. A nickel is about the same size as one of the plates shown, and so can be used repeatedly to get a good estimate.
- 7. (12; 6) Some students will forget to count the fourth wheel on the car, because it can't be seen. Another common mistake is to either not count the two friends, or count the two friends but not yourself. This problem involves a concrete example of ratio -- 4 wheels to each car; 2 headlights to each car. Similar problems would involve considering a real car and additional ratios -- seat belts, air bags, radio speakers, and so on. Other transportation objects offer more possibilities -- bicycles, big wheels, wagons, skates, and so on.