

Commentary

Earth, XXI

1. (**201 people**) Some students might not realize that a plane from Atlanta to Miami might make an intermediate stop in Orlando. A diagram might be helpful. The problem can be approached by either adding 186 and 20, then subtracting 5, or by subtracting 5 from 20, and adding that result to 186.
2. (**dumptruck**) The total of the money is \$1.45 which is the cost of the dumptruck. The roadgrader is also less than \$1.45 but it is not the most expensive.
3. (**yellow, blue, red, purple, green, from left to right**) The second clue (the yellow car last) gives you a place to start. Label the left-most car (the last car in line) as yellow. The first clue then tells you then blue is next-to-last, and red is in the middle of the 5. The third clue tells you that the green car must be first, followed by the purple.
4. (**9 cookies**) The most common way to solve this problem is to add all the cookies known to be eaten, then subtract from 25 to find what Dad ate. Students might also draw 25 cookies, mark out those they know were eaten, and count the ones left.
5. (**a. 2; b. 6; c. 9; d. 2 and 7**) These problems can be solved by working backwards from what you know. Parts (c) and (d) are more difficult as they involve regrouping.
6. (**30 squares**) Students should be encouraged to organize their search for these squares. Perhaps the easiest way to count all the small squares first, then move to the next smallest (2-by-2 squares), then the next smallest (3-by-3 squares) and then the largest (a 4-by-4 square). There are 16 small squares, 9 squares that are 2-by-2, 4 squares that are 3-by-3, and 1 square that is 4-by-4. That gives a total of 30 squares.
7. (**H**) H is the only letter that matches the attributes. I, N, and Z could all be considered if the student draws them with the middle segment shorter than the other two, but usually this is not the case.
8. (**Accept 1/6, 1/7, or 1/8**) This problem is unusual for students because the piece they are asked to consider is not shown. They will need to know to divide the pie into pieces the same size as the missing piece, and then count all the pieces that would make up the whole pie.