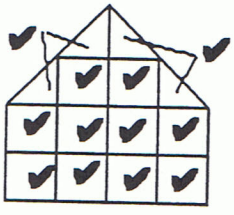
Commentary

Earth, VI

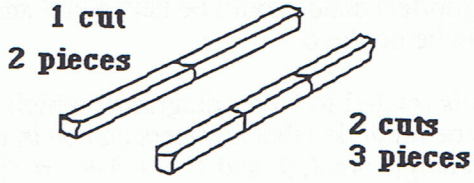
1. **(15)** Students might first add 9 and 12 and then subtract 6, or they might realize that only half a dozen, 6, need to be added to 9. Some students might not know what a dozen means, but having the egg carton shown should be a hint. Most students will intuitively know what "half" means in this situation, and can count half the eggs shown for "half a dozen."

2. **(a. L, N; b.**  **; c. 54, 49)** In pattern a, the pattern skips one letter each time. In pattern b, the dog, pencil, dog, cake pattern repeats. In pattern c, 5 is subtracted from the previous number each time. In the last pattern, some students might get the answer by the rhythmic count of numbers that end in 9 followed by numbers that end in 5, working backward through the decades.

3. **(12)** The concept of area in this problem includes "half-squares." It is helpful for students to use figures where the halves fit together to make another whole unit square rather than counting "half" each time. In the figure given, each ✔ is one whole unit square.



4. **(20 minutes)** It might be helpful for students to act it out, or draw a sketch because some might think that two pieces would require two cuts. This should help them see that only two cuts are required, at ten minutes each, to get three pieces.



5. **(Annie: 25; Baldwin: 34; Carl: 18)** Students may use "guess-check-revise" or logical reasoning to solve this problem. If the boys have *even* numbers on their shirts, Annie must have the only *odd* numbered shirt. Baldwin's number must be even and have a sum of seven; the only number with these characteristics is 34. Carl's number then must be 18.

6. **(clown: (5,2); train: (2,1); elephant: (3,4))** It is important for students to realize to go east (right) first, then go north (up) to locate points. For students having trouble, have them trace the path with their finger.