# Commentary

Mars, XXI

1. **(17)** Adding 6 and 9 gives 15. Adding 9 and 9 gives 18. So the odd number is between 15 and 18 which makes the number 17.

2. **(20 pogs)** The student needs to find out how many pogs Maria and José have together, so $28 + 12 = 40$. If they have the same number of pogs after Maria gives some pogs to José, then the total of 40 must be divided in half. $40 \div 2 = 20$, so each one has 20 pogs. Some students may solve the problem without computation by simply giving one pog at a time from Maria to José, until they both have the same number, which is 20.

3. **(See the answers below.)** Most students would use the example angles to help in identification. The students should be encouraged to actually use a sheet of paper with a square corner as an aid.
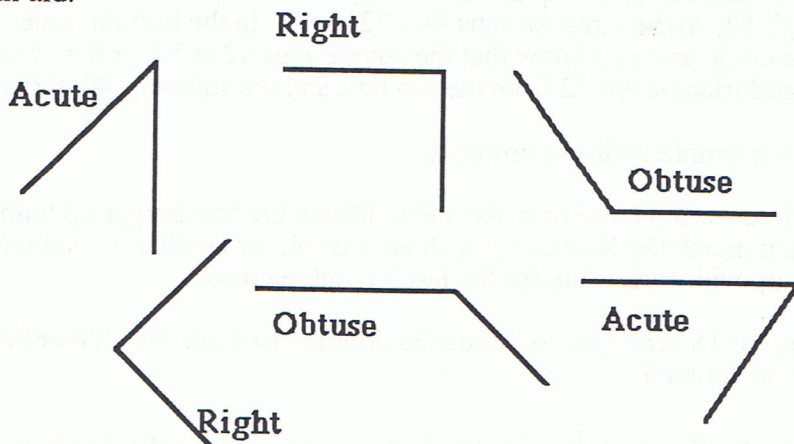
4. **(125)** Students can either *count up* from 509 to 634, and remember how many they counted, or subtract 509 from 634. Perhaps the most difficult way, but one that many students will use, is to align the problem vertically as in a subtraction problem, and find the digits one-at-a-time, going from right to left using the subtraction algorithm.

5. **(900)** There are many ways for students to estimate the answer. One method is to think of 59 milliliters as 60 milliliters, and then ten of the tubes would hold about 600 milliliters, and the next five tubes would hold half that, or 300 milliliters. Together, then, all 15 would hold 900.

6. **($120)** Each of the 6 shelves measures 8 feet, so the total feet would be $6 \times 8 = 48$ feet. Each foot costs $2 so the 48 feet must be added twice or multiplied by $2 ($96). The cost of the brackets can be found by adding twice or multiplying $12 by 2 ($24). The last step is to add $96 and $24 to find the total Mr. Brown spent.

7. **(a. 5, 4, 3, 2, 1, 0)** All digits less than 6 will work.
   (b. 6, 7, 8, 9) All digits greater than 5 will work.
   (c. 4) For the numbers to be equal, the digits must all be the same.

8. **(The choices are a 5 x 5 square, or 7 x 3; 9 x 1, 4 x 6, or 2 x 8 rectangles.)**