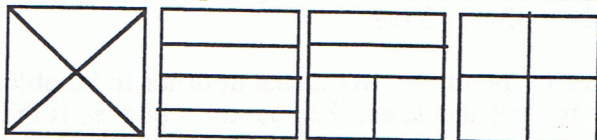# Commentary
*Jupiter, XIX*

1. **(Four possibilities are shown below.)** Students can show "fourths" in a number of ways. The square must be divided into 4 parts, and the parts must have the same area. However, the parts do not have to be the same shape.



2. **(45)** Students might start by listing the numbers greater than 39 but less than 46: {40, 41, 42, 43, 44, and 45}. The only number of the list that you count when you count by threes and fives is 45. "It roared an odd number of times." is not necessary as a clue.

3. **(771)** Students might use a calculator to divide 3855 by 5, getting 771. Students might be challenged to find the approximate number of pushups per minute -- 13 -- and to then approximate the rate of his doing push ups (about 1 every 5 seconds).

4. **(square is 4 units; rectangle is 8 units)** Some students might misinterpret the problem and try to use all four figures to make the square, and then all four again to make the rectangle. They will find they can't make such a square.

5. **(The graph should be approximately equivalent to the one shown.)** The change from 1988 to 1994 is from 15% to 11%. That same change from 1994 to 2000 would result in about 7% in 2000.
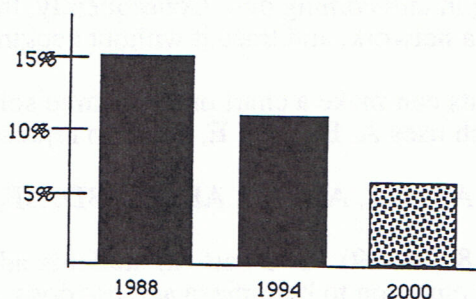


6. **(Figure B)** Students might find the drawing by tracing over figure A, and actually turning it three 90° turns, to match it up with one of the given drawings.

7. **(40 students)** This problem cab be solved by *working backward* and then adding. On Friday 12 students got the silly willies; therefore on Thursday, 10 students did; Wednesday, 8 did; Tuesday, 6 did; and Monday, 4 did. 12 + 10 + 8 + 6 + 4 = 40.

8. **(One solution is shown.)** Students might start by putting 4 in the center, and the two numbers that "surround" it, 3 and 5, on the ends.