Commentary

Jupiter, V

1. **(a. Answers will vary -- 10 and 11 are the most common answers; b. Answers will vary.)** Students should use a calculator to compute:

   25 x 60 x 16 x 365 x (answer for part a)

   If part a is 10, the answer is 88 million; if part a is 11, the answer is 96 million.

2. **(11 quarters, 4 dimes)** Some students will randomly use *guess-check-revise*, while others realize that the amount of money in quarters alone should be fairly close to $3.15, and begin working backward from there, using *guess-check-revise*.

3. **(rectangle: 28 cm; 2 triangles: 32 and 36 cm; 2 parallelograms: 32 and 36 cm)** These are the four most likely answers, but a quadrilateral could also be built with a perimeter of 36 cm. Note: parallelograms cannot be named as rectangles.

4.

$$\begin{array}{rcccc} & 4 & \boxed{5} & 6 & 8 \\ & & 5 & \boxed{9} & 6 \\ + & \boxed{5} & 9 & 4 & \boxed{7} \\ \hline 1 & 1, & 1 & 1 & 1 \end{array}$$

5. **(c. dime)** A century is ten times a decade; likewise, a dollar is ten times a dime.

6. **(12)** Students have to consider a problem that is not one usually asked. If 3 is 1/4 of some number, what number is it?

7. **(2 out of 3 chances, or 2/3, or 67%)** There are three spaces left, and two of those will result in a win for the computer. Any of the three spots are equally likely to be selected, so the chance is 2/3 of a win.

8. **(25, 3, 3, 9)** Students familiar with a Venn Diagram should have little difficulty with this problem. All the X's are counted for the first answer. Only 3 X's are in the RAP ring only. Three students are in the overlap between rock and country, but not in RAP. There are 9 students that are in the RAP and country circles together, but not in the rock circle.