Simple Solutions

Problem Solving-Level 3

Problem One

a. Use your calculator to complete this number pattern.

$$(1 \times 8) + 1 =$$

$$(12 \times 8) + 2 =$$

$$(123 \times 8) + 3 =$$

$$(1\ 234\ x\ 8) + 4 =$$

b. Predict the answer to (12 345 x 8) + 5 and (123 456 789 x 8) + 9. Check your answer.



Problem Two

Only six people came to Mrs Brown's afternoon tea. She had bought 60 cream buns.

Everyone ate the same number of cream buns.

- a. How many buns might they each have eaten?
- **b**. How many buns would then be left over?

Problem Three

Janice has nine marbles and a set of balance scales. One marble is lighter than the other marbles. How many times will Janice need to use the scales to find the lighter marble?



94 93 92 91 95 100 99 90 96 97 98

Problem Four

If this pattern continues, which square will have the number 28 in it?