## Simple Solutions

Problem Solving-Level 3

#### Problem One

a. Use your calculator to complete this number pattern.

$$(1 \times 8) + 1 =$$
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$$(12 \times 8) + 2 =$$
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$$(123 \times 8) + 3 =$$

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

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?