ANSWERS TO PREVIOUS PUZZLES:

3. $(a + b)^2$
$= a^2 + 2ab + b^2$
$=(40 + 5)^2$
$= 2025$

4. $(a + b)^2$
$= a^2 + 2ab + b^2$
$=(50 + 6)^2$
$= 3136$

Perplexing Puzzles

Diviso

5

Choose a two-digit number where both digits are the same.

Add the digits.

Divide the original number by the sum of its digits.

e.g.

44

4 + 4 = 8

44 ÷ 8 = ?

Try some other digits where both digits are the same e.g 11.

What do you notice about the result when the two-digit number is divided by the sum of its digits?

Now try using three and four-digit numbers to start with.

Write about what you notice.

Perplexing Puzzles

Three Three Threes

6

Write down any number below 30.

Multiply the units digit by 4 and then add on the tens digit.

Repeat the process using a new number. For example: 15.

What do you notice?

Try starting with different numbers below 30.

e.g.

27

7 × 4 = 28

28 + 2 = 30