

## 1. Sudoku Puzzle: Expert Level

Choose a digit from 1 to 9 and place it in the Sudoku grid below. Every digit from 1 to 9 must appear:

- In each of the columns,
- in each of the rows,
- and in each of the nine boxes.

2	6		7					1
		9		4			5	
	1		6					
					1	3	6	
8								2
	4	2	9					
					5		3	
	2			8		1		
4					7		9	8

## 2. Chocolate Mathematics 2006

- Step 1: Pick the number of times a week that you eat chocolate. This number must be between 1 and 9.
- Step 2: Multiply this number by 2.
- Step 3: Add 5 to your answer.
- Step 4: Now multiply your result by 50.
- Step 5: If you have already had your birthday this year add 1756. If you haven't, add 1755.
- Step 6: Now subtract the four digit year that you were born.

You should now have an amazing number. The first digit will be your original number (i.e. how many times you eat chocolate each week). The last digits give your age. This is the only year (2006) the trick will ever work. Can you explain why it works?

3. Can you make chocolate mathematics work for 2007?

An incorrect assumption has been made within the chocolate mathematics algorithm. Where is the error?