

## Numoku

Fill the blank squares with single digits from 1 to 9 so that:

- Each white or shaded  $3 \times 3$  block contains **all** of the digits from 1 to 9
- A digit can't be repeated in a row or column
- The sum of every row and every column is **30**

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

### Information for Parents/Carers

This problem is similar to Sudoku, except that it also involves calculation.

This problem involves using logical thinking. Encourage the children to make jottings about what numbers might go in a space, as well as what **can't** go in a space. To assist them with this, they may find it useful to mark down every number in each space to enable them to cross out the ones that can't be possible. They may have to make chains of logical reasoning, for example:

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

2 and 3 are the missing numbers in these spaces.

$$2 + 3 + 4 + 9 = 18$$

The two missing numbers must total 12, so they could be  $9 + 3$ ;  
 $8 + 4$ ;  $7 + 5$ ;  $6 + 6$

It can't be 9 and 3 as these have already been used. It can't be 6 and 6 as the digits in a row can't be repeated; it can't be 8 and 4 as a 4 has already been used so it must be 7 and 5.

# Maths Game

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

5 must go in the first square as there's already a 7 in the first column which means that 7 must go in the second blank space.

## Solution:

<b>3</b>	<b>9</b>	<b>4</b>	<b>5</b>	<b>7</b>	<b>2</b>
<b>7</b>	<b>1</b>	<b>5</b>	<b>6</b>	<b>3</b>	<b>8</b>
<b>8</b>	<b>6</b>	<b>2</b>	<b>1</b>	<b>9</b>	<b>4</b>
<b>1</b>	<b>4</b>	<b>9</b>	<b>8</b>	<b>2</b>	<b>6</b>
<b>5</b>	<b>2</b>	<b>7</b>	<b>3</b>	<b>4</b>	<b>9</b>
<b>6</b>	<b>8</b>	<b>3</b>	<b>7</b>	<b>5</b>	<b>1</b>