
30th
WORLD PUZZLE CHAMPIONSHIP
ROUND 23 / PUZZLE 1-Number Placement

### 23.1 TomTom

Insert a number from 1 to N into each cell in the N by N grid so that no number repeats in any row or column. Also, the number in the upper-left corner of each bold cage indicates the value of a mathematical operation (addition, subtraction, multiplication, division) applied successively to all numbers in the cage, starting with the largest number for subtraction and division (e.g. 1,2,4 with subtraction is a 1 - clue as 4-2-1 =1).
The operation may or may not be given in the cage, but at least one of the four operations must apply. Numbers can repeat within a cage.

| 30 |  | 5 |  |  | 30 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\{1-6\}$ |  |  |  |  |  |
|  | 15 |  | 16 |  |  |
|  |  |  |  |  |  |
|  | 15 |  |  | 10 |  |
| 8 |  |  |  |  | 48 |
|  |  | 2 |  |  |  |

