

Killer Uncaged

This Killer has been uncaged, but the same rules apply. The sum for each missing cage is placed, as usual, in the leftmost cell of the top row of that cage. There are no single cell cages.

Killer Sudoku

Place a number from 1-9 in each empty cell so that each row, each column and each 3x3 block contains all the numbers from 1-9. In addition, the digits in each cage (marked by dots) must add up to the number in the upper-left corner of that shape. No digit can be repeated within a cage.

(For more details go to the *Puzzles Encyclopedia* at puzzler.com)

Killer Uncaged solving tips

Don't let the empty grid put you off; here are some general tips (with extracts from a puzzle) to get you started:

Begin by plotting the paths of the cages. Remember the cage for each sum must surround *at least* two cells and the sum is always placed in the leftmost cell of the top row of its cage. Therefore neither the cell immediately above, nor the cell to the left of the sum-cell can form part of that cage.

4	6			13	
	28	16		3	
12			12		5

For some sums there will be only one option for where the second cell of that cage must go (eg. the 4-sum and the 6-sum, above); for others it will not, at first, be clear so must wait until later (eg. the 16-sum and the 3-sum).

Remember, if a sum is 18 or higher its cage must surround *at least* three cells, or if it is a 25-sum or higher the cage must surround *at least* four cells, etc.

As each new cell is claimed by a cage, so the paths of the other cages will be restricted.

		9		12		
	24			9	17	
					10	

Please note: If the path of a cage goes into a row (or rows) below its sum-cell, the cage can go further left than the original sum-cell. For example, the 24-sum (above) can go either left, right or both in the row below the sum-cell. Or the 9-sum could go left.

21	7				
	3		14		
4	6				
	28	16			
12				9	
	24				

As the path of the cages progresses, you will begin to see opportunities to use your Killer skills to further their construction. For example, see the leftmost column in the example to the left. The cages of these three sums

cover all but one of the nine cells of this column. $21 + 4 + 12 = 37$, therefore the remaining cell cannot be part of the 12-sum or the column would not total 45. This cell must therefore be part of the 24-sum and is an 8.

21	7			9		14
	3		14		7	22
				13		

Another example. Similar logic can be applied to the 3x3-block on the left (above). $21 + 7 + 3 + 14 = 45$, therefore the 14-sum cage cannot extend out and claim the cell to its right. Now only the 9-sum in the 3x3-block on the right can claim this cell.

4	6			13	
	28	16		3	
12			12		5

In more advanced puzzles, the combinations within *possible* cages will have a direct effect on what shape they form. For example, if the 6-sum (above) was a three cell cage (1,2,3), then the 4-sum in the left column (1,3) would not be possible to complete. So the 6-sum must be a two-cell cage.

To complete the puzzle you must use both your Killer Sudoku solving skills and the logic of where the cages might, or might not, go. Good luck!