

Killer Queen Appendix – Puzzle Solution

Enigma GT

OK start the month balloon brothers manned up in city of light

Day they first climbed the savage mountain backwards

Kate meets jito at spanish pontoon

Whore going 'ell for leather has ultimate answer

Head north to luton via missing one

E60 outruns seven straight bavarian pots

Innate days of plunder coming of age with divine wisdom

One penny has golden eye

VIP paul commends succouring phebe

Rock 'n' reel gives bob greatest job

Muggins pegs 135 with box

Sated hammer sorts even a crooked account

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

There are many ways to solve most SuDoku puzzles and Rick doesn't claim this is necessarily the most efficient way to do this one. But rest assured that all valid ways result in the same answer.

So... draw in the referencing system, K0 to S8.

For convenience below, cells are denoted as e.g. L4, whereas cage references are denoted as e.g. [L4].

Treat all the values given by Turner in the puzzle as cages, so by convention show these values in the top-left corner of the cell. Some of these may turn out to be single-cell cages.

Then add the cages found in the answers to all the clues, shown below as cage-location / cage-size / cage-value:

1. K0/2/11 (Montgolfiers)
2. K2/2/13 (K2 mountain)
3. K8/3/21 (John Steward)
4. L4/7/42 (Hugo Buttane)
5. M1/3/11 (M1 motorway)
6. M5/6/32 (BMWs)
7. N8/3/17 (Istanbul)
8. P1/2/17 (James Fleming)
9. P6/2/16 (Romans)
10. R2/4/24 (David Cornwell)
11. S5/4/27 (Cribbage)
12. S8/1/- (Tony Marcello)

Now try and deduce the shape of each cage. In all cases, except [L4] and [M5], there is only one possible shape and position for each cage based on its value and size, and its neighbouring cages.

[P6] occupies cells P6 & Q6; it cannot be P6 & P7 else that region would exceed 45.

[L4] occupies 6 cells in column 4 and one more cell, either L5 or Q3 or R4 shown by question marks; it cannot occupy L6 else that region would exceed 45.

[M5] occupies 5 cells in column 5 and one more cell, either O6 or R5 shown by question marks.

N.B. Cages cannot overlap.

Let's see where we are now...

	0	1	2	3	4	5	6	7	8
K	11		13		2	4	5	9	21
L	9		6		42	?			
M		11				32	9		1
N		9	8	9			4	8	17
O	6			5			?	9	
P	3	17		1			16		
Q		8	5	?					6
R	4		24	7	?	?			
S				2		27			

[K4], [K7], [M8], [N3], [N7], [O3], [P3] & [S3] must be single cell cages.

[K6] must be 2 cells, values 2 & 3, else region would exceed 45.

[M6] must be 2 cells, values 4 & 5, else region would exceed 45.

[K8] must have values 6, 7 & 8.

$K5+K8=7$, so $K8=6$, $K5=1$.

[K5] must be 2 cells, so $L5=3$.

$L7=7$, $L8=8$.

[P1] = 8 & 9, [P6] = 7 & 9, so $P6=7$ & $Q6=9$.

N1 & N2 can't be 9 & 8, so [N1] & [N2] are cages of 2 cells, and [O0] is a single cell cage.

$O8=9$ as it's the only cell in that region that can be.

Let's see where we are now...

	0	1	2	3	4	5	6	7	8
K	¹¹		¹³		2	⁴ 1	⁵ 3	9	²¹ 6
L	¹		6		⁴²	3	2	7	8
M		¹¹				³²	¹ 4,5	4,5	1
N		¹	⁸	9			⁴	8	¹⁷
O	6			5			[?]	¹	9
P	³	¹⁷ 8,9	8,9	1			¹⁶ 7		
Q		⁸	⁵	[?]			9		⁶
R	⁴		²⁴	⁷	[?]	[?]			
S				2		¹⁷			¹

N6 is single cell cage as cannot be cage of 2 with values 1 & 3.

M6=5 & M7=4.

[N8] can only be 3 & 5 & 9.

O6=1 (only possible value), so [O7] has 3 cells with O7=2 & P7=6 & Q7=1.

Q8, R8 & S8 = 2, 4 or 7, so [Q6] has 2 cells = 2 & 4, S8=7.

R6 & S6 = 6 or 8, R7 & S7 = 3 or 5.

[M1] = 2 & 3 & 6 (only option), so M3=6.

N0+P0=5, P0 can't be 1 or 4, so must be 2 or 3.

Q0 cannot be 1, so [P0] is a single cell cage & N0=2.

[N1] must be 4 & 5; [N2] must be 1 & 7.

L2 must be single cell cage, cannot be 2 cells of 1 & 5 or 2 & 4.

Let's see where we are now...

	0	1	2	3	4	5	6	7	8	
K	¹¹		¹³		2	⁴ 1	⁵ 3	9	²¹ 6	
L	⁹		6		⁴²	3	2	7	8	
M		¹¹ 2,3	2,3	6		³²	⁹ 5	4	1	
N	2	⁹ 5	⁸ 1	9			4	8	¹⁷ 3,5	
O	6	4	7	5			⁹ 1	⁹ 2	9	
P	3	¹⁷ 8,9	8,9	1			¹⁶	7	6	3,5
Q		⁸	⁵	?			9	1	⁶ 2,4	
R	⁴		²⁴	7	?	?	6,8	3,5	2,4	
S				2		²⁷	6,8	3,5	7	

$K2=5, K3=8, K0=4, K1=7.$

[R0] must have 2 cells, so $R0=1, R1=3.$

[Q1] must have 1 cell, so $P1=9, P2=8.$

$M1=2, M2=3.$

$R7=5, S7=3,$

[S5]=27, so $S6=8$ & $S5=9$ & $R6=6.$

[M5] includes R5 but not O6 as column 5 must be 45.

[R3] has 1 cell, the option of 2 cells has no available combination of numbers.

[Q2] has 2 cells of 2 & 3, it cannot be 1 & 4.

[L4] contains R4 and not Q3.

$Q0=7,$ as region=45.

[R2] has 4, 5, 6 & 9, so $S1=6, S2=4, R2=9, S0=5.$

$L3=4, L1=1,$ [L0] is a single cell, $M0=8.$

$N8=3, P8=5, L4=5, M4=9, M5=7, O5=8, O4=3, P4=4, P5=2, N5=6, N4=7.$

$Q8=4, R8=2, Q4=6, Q5=5, R4=8, R5=4, S4=1.$

The grid is now complete...

	0	1	2	3	4	5	6	7	8
K	4 ¹¹	7	5 ¹³	8	2	1 ⁴	3 ⁵	9	6 ²¹
L	9	1	6	4	5 ⁴²	3	2	7	8
M	8	2 ¹¹	3	6	9	7 ³²	5	4	1
N	2	5 ⁹	1 ⁸	9	7	6	4	8	3 ¹⁷
O	6	4	7	5	3	8	1	2	9
P	3	9 ¹⁷	8	1	4	2	7 ¹⁶	6	5
Q	7	8	2 ⁵	3	6	5	9	1	4 ⁶
R	1 ⁴	3	9 ²⁴	7	8	4	6	5	2
S	5	6	4	2	1	9 ²⁷	8	3	7

Wasn't that hard, was it?