



Mine Field - Solution

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Solution: Solve the logic puzzle to find the locations of the 25 mines below. For each mine, combine the coordinates from the left and from the top to form a number. The mines in the first row have the numbers 02, 03, 05, 07; mines in the second row have the numbers 11, 13, 17, 19, etc. All of them are prime numbers, so the mines are in PRIME condition.

	1	2	3	4	5	6	7	8	9	10
0	2	●	3		●	3	●		1	
1	●		●	4	1		2		2	2
2	2		2			2		4	●	
3	●	4	2			2	●	3	1	
4	2		●	2			2			1
5	2	4	●			2			1	
6	●	4	2	2		1	●	3	2	
7	●	4	●				1		●	2
8	1	3	●		0		1		●	2
9		1					●	2	1	1

Author's notes: The logic puzzle is a variation of the classic “minesweeper” puzzle, where mines cannot be located on numbers. The reason for making this variation is that the mines in the top left corner are quite densely packed. If numbered squares are not allowed to have mines, then I have to fill in almost all non-mine squares in that area with clue numbers in order to get a unique solution, which makes the puzzle less interesting.

The original version did not have the labels on the rows and columns, which made it much harder to connect the locations of mines to prime numbers. One could infer that by observing that the even columns are mostly empty, except for the top one in column 2. Plus the fact that there are 25 primes from 1 to 100.

Easter egg: In mathematics, a “field” is an algebraic structure, and the number of elements in any finite field must be the power of a PRIME.