

Akari is an object placement puzzle in which lightbulbs are placed with the aim to light up the whole grid. Palmer Mebane gives the rules as follows:

The object is to place “lightbulbs” in some grid squares. Each lightbulb illuminates every square in each of the four compass directions (imagine a rook in chess) up until a black cell is hit. Every grid square must be illuminated, but no two lightbulbs may illuminate each other. A black cell with a number indicates how many of the four surrounding cells have a light bulb.

I sometimes feel there can be a decent amount of trial and error in these puzzles, but I’ve got an example to walk you through some logical techniques I use.

|  |   |   |   |  |   |
|--|---|---|---|--|---|
|  | 2 |   |   |  | 2 |
|  |   |   |   |  |   |
|  |   | 1 |   |  |   |
|  |   |   |   |  |   |
|  |   |   | 1 |  |   |
|  |   |   |   |  |   |

It doesn’t always happen, but here we have an easy start with the 2 in the top right as there are only two spaces to fill. I personally mark lightbulbs with circles and then draw lines of light to mark lit cells but here I’ve coloured lit cells to make it visually nice.

|  |   |   |   |   |   |
|--|---|---|---|---|---|
|  | 2 |   |   | ○ | 2 |
|  |   |   |   |   | ○ |
|  |   | 1 |   |   |   |
|  |   |   |   |   |   |
|  |   |   | 1 |   |   |
|  |   |   |   |   |   |

This also means that the other 2 cell only has two remaining options so we can do those too.

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| ○ | 2 | ○ |   | ○ | 2 |
|   |   |   |   |   | ○ |
|   |   | 1 |   |   |   |
|   |   |   |   |   |   |
|   |   |   | 1 |   |   |
|   |   |   |   |   |   |

Now both 1 clues have multiple options, so we have to use other reasoning. There is an unlit cell in the bottom right which can only be lit by containing a lightbulb, so we can add that.

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| ○ | 2 | ○ |   | ○ | 2 |
|   |   |   |   |   | ○ |
|   |   | 1 |   |   |   |
|   |   |   | x |   |   |
|   |   | x | 1 | ○ |   |
|   |   |   | x |   |   |

Notice that I have added crosses in the other cells around the 1 clue as a result. It's important that you don't use the same symbol as your "light" symbol for these cells which you know not to contain a lightbulb otherwise you'll forget to light them up.

What this now means is that the cell to the right of the other 1 clue must contain a lightbulb otherwise it can't be lit.

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| ○ | 2 | ○ |   | ○ | 2 |
|   |   |   |   |   | ○ |
|   |   | 1 | ○ |   |   |
|   |   | x |   |   |   |
|   |   | x | 1 | ○ |   |
|   |   |   | x |   |   |

We can use similar logic with the other cell touching the 1 clue as it only has one cell it can be lit from, below it, in this case.

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| ○ | 2 | ○ |   | ○ | 2 |
|   |   |   |   |   | ○ |
|   |   | 1 | ○ |   |   |
|   |   |   |   |   |   |
|   |   |   | 1 | ○ |   |
|   |   | ○ |   |   |   |

There is now one cell left unlit, so it needs a lightbulb.

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| ○ | 2 | ○ |   | ○ | 2 |
|   |   |   |   |   | ○ |
|   |   | 1 | ○ |   |   |
|   |   |   |   |   |   |
|   | ○ |   | 1 | ○ |   |
|   |   | ○ |   |   |   |