

Keen Eye

Firstly, intuitively, we should always use ROW, since it gives us a cross section of *every* digit, not just one.

So, the task is basically this:

- Given a cross-section, can you uniquely identify what digit it is?
- If not, how many cross-sections do you need to form a unique “fingerprint” of each digit?

We can show that 1 row is not sufficient (that is, for each row, there are always at least two digits that share that cross-section). Amazingly, 2 rows *is* sufficient (for example, rows 1 and 4).

How do you find them? Well, 2 is small enough that you could find it on pen and paper... I guess. There is always this option:

Standard Toolbox: Complete Search

Can't figure out the right value? Just try everything.

- **Pros:** Always works
- **Cons:** Might be too slow (do the analysis)

You can brute-force test all rows, then all pairs of rows... and so on, until you find a good set of cross-sections that uniquely identifies each digit.