Title

On Integers Whose Sum is the Reverse of their Product

Speaker: Xander Faber, IDA/CCS
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Abstract: We determine all pairs of positive integers \((a, b)\) such that \(a + b\) and \(a \times b\) have the same decimal digits in reverse order:

\[(2, 2), (9, 9), (3, 24), (2, 47), (2, 497), (2, 4997), (2, 49997), \ldots\]

We use deterministic finite automata to describe our approach, which naturally extends to all other numerical bases. This is joint work with Jon Grantham.

Please contact John Doyle (john.r.doyle@okstate.edu) for the Zoom link.