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# Numerical Brain Teasers

Exercise Your Mind

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The  
Pragmatic  
Programmers

# Numerical Brain Teasers

Exercise Your Mind



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# Preface

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I have always loved puzzles. From the time I was a child, my extended family surrounded me with them. They would put aside clippings from newspapers for us kids and indulge us with small books of collected puzzles. Recently, my dad was under the weather. I sent him a family care package: some snacks and a book of word-find puzzles.

There's something comforting about engaging the mind. Each solution brings diversion and, possibly, a dash of endorphins or some other brain chemical, helping lift you up as you conquer every challenge. They're a wonderful way to get your brain going when you're starting work, to divert you during a short break, or to help you transition back to normal life when your work day ends.

A good puzzle has a bit of crunch to it. It challenges, rewards, and then allows you to move on with life, having entertained yourself or learned something. Puzzles are momentary delights. Many of the iOS apps I write were built around number-, word-, and logic-puzzles.

One of the delights in my life these days is writing little puzzles for the Pragmatic Twitter feed. My instructions were to promote books, and to support, entertain, and engage customers. The brainteaser part of my job wasn't intended to be a big deal. I like puzzles and math and many of our readers do as well. And then, suddenly, our engagement numbers went a little wild.

It seemed that I had underestimated the appeal of little puzzles.

As I varied puzzle styles, to keep things interesting, I began to learn what people liked. Puzzles needed to be short, self contained, and "gritty". I started called them "al dente" puzzles, like the pasta. Firm to the bite. They had to offer a challenge but be solvable within a few minutes. Full sized 9x9 Sudoku was off the table – too long – but Sudoku-inspired styles were not. Our readers showed demand for fun but thoughtful challenges.

Everything had to fit within a tweet, so I phased out more complicated puzzles or streamlined them. Each brain teaser had to be direct and visual. This limit guided the selection and development of my content.

Over time, I started creating my own puzzles and adapting styles. I collected and designed lots of little math teasers. Soon, my puzzles started taking up a life of their own as I began to fill my work folder with puzzle ideas. I programmed generators so our puzzle look and style was consistent and engaging.

Eventually, my puzzle tweets drew the interest of my boss. Head Pragmatic honcho Dave Rankin encouraged me to collect them into a book.

So I did.

This is a curated collection of some of my favorite math puzzle styles. This book collects styles of number-based puzzles. It's full of quick brain teasing games. It's a mix of puzzles and storytelling, so I can share my delight of these numeric conundrums with you. I hope you enjoy solving these as much as I enjoyed creating them.

Each chapter is devoted to a different style. You'll find a mix of traditional and new puzzles, unified by their focus on arithmetic, geometry, and logic. These puzzles allow you to explore a style of math head-scratcher and then test out your skills on real challenges.

Thank you for reading this book. I'm so glad that I get to share these little joys with you.