

Preface

Welcome to this collection of mathematical curiosities.

In my mathematical career I've always held a strong focus on teaching and outreach, on sharing and promoting the joy mathematics can bring. And I am particularly fond of those quirky gems and delightful twists of thought that abound in playing with and thinking about mathematics. This book is a collection of 34 such twists.

Each piece is a self-contained essay, intended for the general math enthusiast to read and enjoy, relying only on high school mathematics. (A few essays have a touch of calculus.) The cognitive demands of the essays vary, so feel free to skim or dive deep as the whim takes you. The gist of each essay should be easy to pick up with just a cursory glance. Further, each essay has all the right key words and jargon (and, as needed, a key reference) that will allow you to conduct a fruitful internet search if you would like to explore an idea further.

I am very active in the Math Circles world and although these pieces are not written as guides for Math Circles sessions, I can readily see, in my mind at least, how the ideas herein could serve as seeds for super circle activities. Simply presenting the opening puzzler of an essay could well be enough for a full circle session.

I very much enjoyed thinking about and writing this mathematics. I hope these pieces bring you much mathematical joy too.

James Tanton
December 2018