

Contents

Introduction	1
---------------------------	----------

The Activity Gems

1. Demystifying Magic Squares	11
2. Rock Around the Clock.....	27
3. Healthy Dose	39
4. A Hex on Pythagoras.....	55
5. Zigzag Paths to Pascal's Triangle, Combinations, and the Binomial Theorem.....	71
6. From NOW to NEXT: Recursive Representations and the Sequences They Create	93
7. Iterations, Infinite Series, and Fractals	111
8. Families of Numbers—Go Figure!	127
9. Analyzing Change and Modeling Functions Using Finite Differences	151
10. Sampling Rectangles: Randomness, Size, and Methods.....	179
11. Probability: Relative Frequency and Sample Spaces	203
12. Probability Distributions and Expected Values	223

Next Steps	247
-------------------------	------------

Appendix

Materials Available at more4U	251
Classroom Activity Sheets	256

References	387
-------------------------	------------