## MATH 253: DISCRETE MATH EXERCISES

| Section    | Exercises  |
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| 1.         | The Foundations: Logic and Proofs                                |
| 1.1        | (2, 4, 8, 14, 22, 28, 32)  |
| 1.3        | $(6, 8, 13, 14, 24, 57^1)$                                       |
| 1.4        | (2, 6, 10, 16, 28, 34, 38, 61)                                   |
| 1.5        | (1, 8, 9, 20, 38, 46)  |
| 1.6        | (4, 8, 7, 10, 17)  |
| 1.7        | (1, 10, 11, 18, 38)  |
| 1.8        | (1, 6, 9, 14, 40)  |
| <b>2</b> . | Basic Structures: Sets, Functions, Sequences, Sums, and Matrices |
| 2.1        | (2, 4, 10, 14, 32, 34, 42)                                       |
| 2.2        | (1, 4, 13, 20, 22, 34)   |
| 2.3        | (2, 6, 14, 21, 30, 33, 36)                                       |
| 2.4        | (2, 12, 18, 30, 32)  |
| <b>4</b> . | Number Theory and Cryptography                                   |
| 4.1        | (5, 8, 14, 20, 24, 29, 38, 41, 46)                               |
| 4.2        | (2, 4, 26, 31, 32)   |
| 4.3        | (2, 14, 18, 21, 32, 42)  |
| 4.4        | (2, 4, 10, 38, 50, 54)   |
| 4.6        | (24, 26)   |
| <b>5</b> . | Induction and Recursion  |
| 5.1        | (4, 6, 10, 15, 20, 31)   |
| 5.2        | (3, 10, 12)  |
| 5.3        | (2, 5, 10, 12, 32)   |
| <b>6</b> . | Counting   |
| 6.1        | (2, 4, 12, 18, 30, 46, 52)                                       |
| 6.2        | (2, 4, 9, 16, 31, 33)  |
| 6.3        | (1, 5, 6, 8, 19, 26, 28)   |
| 9.         | Relations  |
| 9.1        | (1, 2, 4, 6, 28)   |
| 9.5        | (1, 2, 15, 17, 25, 36)   |

<sup>&</sup>lt;sup>1</sup>Error in textbook solutions.