## Supplemental Homework: Algebra

This table is a list of algebra problems in the skinny book, categorized by subject matter, format, difficulty level, and topic. Difficulty level is according to my own subjective assessment, as applied to an average student.

Chapter 3, pp. 45+

| Page | #  | Subject     | Format | Level | Торіс                                     |
|------|----|-------------|--------|-------|---|
| 46   | 3  | Arith / Alg | QC     | М     | Combining like terms, arithmetic sequence |
| 46   | 4  | Arith / Alg | QC     | Е     | Distributive rules, exponents and signs   |
| 47   | 8  | Arith / Alg | MC1    | М     | Arithmetic sequence                       |
| 48   | 12 | Arith / Alg | MC1    | Е     | FDPs                                      |
| 49   | 15 | Arith / Alg | MC1+   | М     | Absolute value inequalities               |
| 50   | 17 | Arith / Alg | NE     | М     | Factorization                             |

Chapter 4, pp. 65+

| Page | #  | Subject     | Format | Level | Торіс   |
|------|----|-------------|--------|-------|---|
| 67   | 1  | Alg         | QC     | Е     | Zero Factor Principle                               |
| 67   | 2  | Alg         | QC     | М     | Algebraic steps to simplify a QC problem            |
| 68   | 3  | Alg         | QC     | М     | Equivalent / opposite expressions, or "plugging in" |
| 68   | 4  | Alg         | QC     | М     | Inverse variation                                   |
| 68   | 5  | Arith / Alg | QC     | М     | Translating English to math                         |
| 68   | 6  | Alg         | QC     | Е     | Simplifying expressions / QC problems               |
| 68   | 7  | Alg         | QC     | М     | "Advantages" QC method                              |
| 69   | 8  | Alg         | MC1    | М     | System of equations / Substitution or division      |
| 69   | 9  | Alg         | MC1    | М     | Proportion / plugging in                            |
| 69   | 10 | Alg         | MC1    | Н     | Rules of exponents                                  |
| 70   | 11 | Alg         | MC1    | М     | Quadratic inequality                                |
| 70   | 12 | Alg         | MC1    | Н     | Writing numbers as expressions                      |
| 70   | 13 | Alg         | MC1    | М     | Equation with fractions                             |
| 71   | 14 | Alg         | MC1+   | М     | Graphing a line                                     |
| 71   | 15 | Alg         | MC1+   | Н     | Writing numbers as expressions                      |
| 72   | 16 | Alg         | NE     | Н     | Shared work   |
| 72   | 17 | Alg         | NE     | М     | Function notation                                   |

Chapter 7, pp. 141+

| Page | #  | Subject     | Format | Level | Торіс   |
|------|----|-------------|--------|-------|---|
| 142  | 6  | Alg         | QC     | Н     | Writing numbers as expressions                  |
| 143  | 9  | Alg         | QC     | М     | System / substitution / quadratic               |
| 145  | 13 | Alg         | MC1    | Н     | Function notation / powers of negative numbers  |
| 145  | 14 | Arith / Alg | MC1    | Н     | Translating / rules of exponents                |
| 146  | 17 | Arith / Alg | MC1    | М     | Exponents / Interest                            |
| 147  | 19 | Arith / Alg | MC1    | М     | Sequences, inverse function                     |
| 148  | 21 | Arith / Alg | NE     | Н     | Translating / Powers of ten / rational equation |

## Chapter 7, pp. 173+

| Page | #  | Subject     | Format | Level | Торіс                         |
|------|----|-------------|--------|-------|-------------------------------|
| 174  | 2  | Alg         | QC     | М     | QC / algebraic steps          |
| 174  | 4  | Alg         | QC     | Н     | Translating / algebraic steps |
| 176  | 12 | Arith / Alg | MC1    | М     | Properties of exponents       |
| 176  | 13 | Alg         | MC1    | Н     | Shared work                   |
| 177  | 16 | Arith / Alg | MC1    | М     | Combinations of factors       |
| 180  | 20 | Alg         | NE     | М     | Factoring                     |

Chapter 7, pp. 199+

| Page | #  | Subject     | Format | Level | Торіс                          |
|------|----|-------------|--------|-------|--------------------------------|
| 200  | 4  | Alg         | QC     | Н     | Function notation              |
| 201  | 6  | Alg         | QC     | М     | Slope of a line                |
| 203  | 13 | Arith / Alg | MC1    | М     | Properties of numbers          |
| 203  | 15 | Arith / Alg | MC1    | М     | Counting a sequence, fractions |