## Advanced Algebra Assignments Fall 2022

| TOPIC                                                           | ASSIGNMENT                                                                                                            |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Operations on Real Numbers                                      | AI: 1.1: worksheet: all except 35, 36, 39; on 34, change in. to cm.                                                   |
| Solving Linear Equations                                        | AI: 1.2, 1.3: worksheet: Evens                                                                                        |
| Problem Solving Using Algebraic Models                          | AI: 1.3b: Worksheet: Evens                                                                                            |
| Quiz Review                                                     | Review Worksheet: all                                                                                                 |
|                                                                 |                                                                                                                       |
| Literal Equations and Formulas                                  | AI: 1.4: Worksheet: all except 10, 18, 23, 30-32                                                                      |
| Solving Inequalities in One Variable                            | AI: 1.5: Worksheet: evens except 14, 46, 50                                                                           |
| Compound Inequalities                                           | AI: 1.6: Worksheet: evens except 10                                                                                   |
| Absolute Value Equations and Inequalities                       | AI: 1.7: Worksheet: evens except 14b, 40, 44                                                                          |
| Algebra I, Chapter 1 Review                                     | Review Worksheet: all                                                                                                 |
| Slope-Intercept Form                                            | AI: 2.1b: Worksheet: all except 19, 21, 23, 29, 31, 33, 37, 40                                                        |
| Absolute Value Functions                                        | AI: 5.1: Worksheet: all except 12-15, 19, 21, 32-36                                                                   |
| Key Features of Functions                                       | 1.1: Worksheet: all except 17, 29, 33                                                                                 |
| Transformations of Functions                                    | 1.1: Worksheet: all except 17, 29, 33  1.2: Worksheet: all except 17, 32, 33, 35-38; on 15, write as                  |
| Transformations of Functions                                    | vertical stretch only                                                                                                 |
| Piecewise-Defined Functions                                     | 1.3: Worksheet: all except 14, 19, 21, 23, 25, 27                                                                     |
| Arithmetic Sequences and Series                                 | 1.4: Worksheet: all except 14, 16, 21, 25, 34, 36-38                                                                  |
| AA Chapter 1, Part 1 Review                                     | Review Worksheet: all except 15                                                                                       |
|                                                                 | 1                                                                                                                     |
| Solving Equations and Inequalities by Graphing                  | 1.5: Worksht: all except 7, 8, 11, 13, 15, 19, 22-25, 31-32, 34, 35                                                   |
| Solving Linear Systems by Graphing                              | AI: 4.1: Worksheet: all except 12, 15, 20-23, 24, 26, 28-29                                                           |
| Solving Linear Systems by Substitution                          | AI: 4.2: Worksheet: all except 16, 19, 29, 34-38                                                                      |
| Solving Linear Systems by Elimination                           | AI: 4.3: Worksheet: all except 11, 12, 17, 18, 24, 30, 33-37, 39                                                      |
| Solving Inequalities and Systems of Inequalities using Graphing | AI: 4.4: Worksheet: do all odds from 11-31, 28, 30                                                                    |
| Solving Inequalities and Systems of Inequalities using Graphing | AI: 4.5: Worksheets: do all odds from 11-33 except 13, 32, 34                                                         |
| Solving Systems Quiz Review                                     | Review Worksheet: all. On #6, change system to $y=3x+2$ and $y=-x+6$ ; on #7, change system to $y=-4x+1$ and $y=2x-5$ |
| Solving Linear Systems of 3 Variables                           | 1.6: Worksheet: all except 12, 13, 14, 31, 32, 35, 37, 38                                                             |
| Solving Linear Systems Using Matrices                           | 1.7: Worksheet: all except 11, 13, 15, 16, 19, 20, 33                                                                 |
| AA Chapter 1 Part II Review                                     | Review Worksheet: all                                                                                                 |
| Vertex Form of a Quadratic Function                             | 2.1: Worksheet: all except 13, 23, 28, 32, 34, 37, 38                                                                 |
| Standard Form of a Quadratic Function                           | 2.2: Worksheet: all except 12, 14, 21, 25, 26, 31                                                                     |
| Factored (Intercept Form) of a Quadratic Function               | 2.3a: Worksheet                                                                                                       |

| Factoring using GCF, $x^2 + bx + c$              | AI: 7.4: Worksheet: all odds except 23, 25 43; Do 18, 38, 42;                   |
|--------------------------------------------------|---------------------------------------------------------------------------------|
| Factoring using GCF, $x^2 + bx + c$              | AI: 7.5: Worksheet: all odds except 11, 19, 41; Do 12, 20, 36                   |
| Factoring using $ax^2 + bx + c$                  | AI: 7.6: Worksheet: all odds except 19, 21, 51; do 50                           |
| Factoring Special Cases                          | AI: 7.7: Worksheet: all evens except 54; Do 19, 43, 49, 53                      |
| Factoring Review                                 | Review Worksheet: all                                                           |
| Solving Equations by Factoring                   | 2.3b: Worksheet: all except 10, 12, 20, 32, 33, 38, 42, 43, 45                  |
| AA Chapter 2 Part I Test Review                  | Review Worksheet: do 2-3, 6, 8-19, 21-29 (save worksheet for later)             |
| Complex Numbers and Operations                   | 2.4: Worksheet: all except 12, 13, 19, 21, 29, 34-39, 46, 47, 50                |
| Completing the Square                            | 2.5: Worksheet: all except 11, 14, 16, 17, 19, 23, 35-38, 41, 42, 43-48, 51, 54 |
| The Quadratic Formula                            | 2.6: Workst: all except 9, 12, 13, 15, 19-21, 24, 28-31, 35, 36, 39             |
| Linear-Quadratic Systems                         | 2.7: Worksheet: all except 8-10, 25, 26, 27, 29                                 |
| AA Chapter 2 Part II Test Review                 | Review Worksheet: do 4-5, 7, 30-34, 36-57                                       |
| Graphing Polynomial Functions                    | 3.1: Worksheet: All except 13, 14, 16, 17, 19, 20, 29, 32                       |
| Adding, Subtracting, and Multiplying Polynomials | 3.2: Worksheet: All except 11, 26, 29-32                                        |
| Polynomial Identities                            | 3.3a: Worksheet: Do 19, 24, 26-51, 65                                           |
| Polynomial Identities                            | 3.3b: Worksheet: Do 18, 20-23, 25, 52-64, 68                                    |
| Dividing Polynomials                             | 3.4a: Worksheet: Do 10, 13-23, 33, 34                                           |
| Dividing Polynomials                             | 3.4b: Worksheet: Do 9, 24-31, 35, 36                                            |
| Quiz Review                                      | Review Worksheet: All                                                           |
| Zeros of Polynomial Functions                    | 3.5: Worksheet: All except 6, 9, 18, 21, 25, 26, 30                             |
| Theorems About Roots of Polynomial Equations     | 3.6: Worksheet: All except 18, 19, 21, 23, 28, 29, 35, 37, 38                   |
| Transformations of Polynomial Functions          | 3.7: Worksheet: All except 7-10, 27                                             |
| Chapter 3 Review                                 | Review Worksheet: All                                                           |
| Final Exam Review                                | FR-R Final Review Worksheet: all                                                |