



## ADP Algebra II End-of-Course Exam Operational Blueprint

| Content Standards  | Emphasis           | Number of Multiple Choice Items | Number of Short Answer Items    | Number of Extended Response Items |                                  |
|--|--------------------|---------------------------------|---------------------------------|-----------------------------------|----------------------------------|
|  |                    | 1 point each                    | 2 points each                   | 4 points each                     |                                  |
| <b>Operations and Expressions</b>  |                    |                                 |                                 |                                   |                                  |
|  | <b>15% of Exam</b> | 2-12                            | 0-3                             | 0-2                               |                                  |
| O1. Real numbers   |                    |                                 |                                 |                                   |                                  |
| O2. Complex numbers  |                    |                                 |                                 |                                   |                                  |
| O3. Algebraic expressions  |                    |                                 |                                 |                                   |                                  |
| <b>Equations and Inequalities</b>  |                    |                                 |                                 |                                   |                                  |
|  | <b>20% of Exam</b> | 4-16                            | 0-4                             | 0-2                               |                                  |
| E1. Linear equations and inequalities  |                    |                                 |                                 |                                   |                                  |
| E2. Nonlinear equations and inequalities   |                    |                                 |                                 |                                   |                                  |
| <b>Polynomial and Rational Functions</b>   |                    |                                 |                                 |                                   |                                  |
|  | <b>30% of Exam</b> | 13-21                           | 1-3                             | 0-2                               |                                  |
| P1. Quadratic functions  |                    |                                 |                                 |                                   |                                  |
| P2. Higher-order polynomial and rational functions   |                    |                                 |                                 |                                   |                                  |
| <b>Exponential functions</b>   |                    |                                 |                                 |                                   |                                  |
|  | <b>20% of Exam</b> | 4-16                            | 0-4                             | 0-2                               |                                  |
| X1. Exponential functions  |                    |                                 |                                 |                                   |                                  |
| <b>Functional Operations and Inverses</b>  |                    |                                 |                                 |                                   |                                  |
|  | <b>15% of Exam</b> | 3-13                            | 0-4                             | 0-2                               |                                  |
| F1. Functional operations and composition  |                    |                                 |                                 |                                   |                                  |
| F2. Inverse functions  |                    |                                 |                                 |                                   |                                  |
| F3. Piecewise functions  |                    |                                 |                                 |                                   |                                  |
| <b>Totals per Exam*</b>  |                    | <b>70 points</b>                | <b>46 Multiple Choice Items</b> | <b>6 Short Answer Items</b>       | <b>3 Extended Response Items</b> |
| <b>Additional Notes Regarding the Test:</b>  |                    |                                 |                                 |                                   |                                  |
| As described by Webb's Taxonomy:   |                    |                                 |                                 |                                   |                                  |
| Cognitive Level 1 items include the recall of information such as a fact, definition, term, or a simple procedure, as well as performing a simple algorithm or applying a formula and will make up 20 - 30% of points on the exam. |                    |                                 |                                 |                                   |                                  |
| Cognitive Level 2 items require students to make some decisions as to how to approach the problem or activity and will make up 40 - 60% of points on the exam.   |                    |                                 |                                 |                                   |                                  |
| Cognitive Level 3 items require reasoning, planning, using evidence, and a higher level of thinking (e.g. justifying or analyzing) and will make up 20 - 30% of points on the exam.  |                    |                                 |                                 |                                   |                                  |
| Short Answer (2 point) items will make up 12 points on every operational form.   |                    |                                 |                                 |                                   |                                  |
| Extended Response (4 point) items will make up 12 points on every operational form.  |                    |                                 |                                 |                                   |                                  |
| *Total per exam item counts above do not include embedded field test items that will consist of 6 multiple choice items and 1 or 2 constructed-response items. These items will not count towards a student's score.               |                    |                                 |                                 |                                   |                                  |
| Half of the items will appear in the session where a calculator is permitted and half will appear in the session where a calculator is not permitted.  |                    |                                 |                                 |                                   |                                  |