

FOR TEACHERS ONLY

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

INTEGRATED ALGEBRA

Thursday, August 13, 2009 — 8:30 to 11:30 a.m., only

SCORING KEY AND RATING GUIDE

Mechanics of Rating

The following procedures are to be followed for scoring student answer papers for the Regents Examination in Integrated Algebra. More detailed information about scoring is provided in the publication *Information Booklet for Scoring the Regents Examination in Integrated Algebra*.

Use only *red* ink or *red* pencil in rating Regents papers. Do *not* attempt to correct the student's work by making insertions or changes of any kind. Use check marks to indicate student errors.

Unless otherwise specified, mathematically correct variations in the answers will be allowed. Units need not be given when the wording of the questions allows such omissions.

Each student's answer paper is to be scored by a minimum of three mathematics teachers. On the back of the student's detachable answer sheet, raters must enter their initials in the boxes next to the questions they have scored and also write their name in the box under the heading "Rater's/Scorer's Name."

Raters should record the student's scores for all questions and the total raw score on the student's detachable answer sheet. Then the student's total raw score should be converted to a scaled score by using the conversion chart that will be posted on the Department's web site <http://www.emsc.nysed.gov/osa/> on Thursday, August 13, 2009. The student's scaled score should be entered in the box provided on the student's detachable answer sheet. The scaled score is the student's final examination score.

INTEGRATED ALGEBRA – *continued*

Part I

Allow a total of 60 credits, 2 credits for each of the following. Allow credit if the student has written the correct answer instead of the numeral 1, 2, 3, or 4.

(1) 2	(9) 2	(17) 2	(25) 3
(2) 1	(10) 4	(18) 1	(26) 2
(3) 4	(11) 1	(19) 3	(27) 4
(4) 1	(12) 4	(20) 1	(28) 4
(5) 3	(13) 4	(21) 3	(29) 3
(6) 1	(14) 2	(22) 2	(30) 2
(7) 3	(15) 1	(23) 3	
(8) 3	(16) 2	(24) 1	

Part II

For each question, use the specific criteria to award a maximum of two credits. Unless otherwise specified, mathematically correct alternative solutions should be awarded appropriate credit.

(31) [2] “No,” and an appropriate justification is given.

[1] The equations and expressions are correctly categorized, but the justification is missing or is incorrect.

or

[1] Appropriate justification is given, but the question is not answered or is answered incorrectly.

[0] “No,” but the justification is missing or is incorrect.

or

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

(32) [2] 5,112, and appropriate work is shown.

[1] Appropriate work is shown, but one computational error is made.

or

[1] Appropriate work is shown, but one conceptual error is made, such as not finding the difference.

or

[1] $(12)(30)(16) - (6)(9)(12)$ or an equivalent expression, but no further correct work is shown.

or

[1] 5,112, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

INTEGRATED ALGEBRA – *continued*

(33) [2] $\frac{3}{8}$ or an equivalent answer, and appropriate work is shown.

[1] Appropriate work is shown, but one computational error is made.

or

[1] Appropriate work is shown, but one conceptual error is made.

or

[1] A correct tree diagram or sample space is shown, but no probability or an incorrect probability is written.

or

[1] $\frac{3}{8}$ or an equivalent answer, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

Part III

For each question, use the specific criteria to award a maximum of three credits. Unless otherwise specified, mathematically correct alternative solutions should be awarded appropriate credit.

(34) [3] $x = -2$ and $(-2,11)$, and appropriate algebraic work is shown.

[2] Appropriate work is shown, but one computational error is made.

or

[2] An incorrect equation of the axis of symmetry is written, but an appropriate vertex is found.

or

[2] $x = -2$ and $y = 11$, and appropriate work is shown, but the vertex is not stated as a point.

[1] Appropriate work is shown, but two or more computational errors are made.

or

[1] Appropriate work is shown, but one conceptual error is made, such as not expressing the axis of symmetry as an equation.

or

[1] $x = -2$ and $(-2,11)$, but a method other than algebraic is used.

or

[1] Appropriate work is shown to find $x = -2$, but no further correct work is shown.

or

[1] Appropriate work is shown to find $(-2,11)$, but no further correct work is shown.

or

[1] $x = -2$ and $(-2,11)$, but no work is shown.

[0] $x = -2$ or $(-2,11)$, but no work is shown.

or

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

INTEGRATED ALGEBRA – *continued*

- (35) [3] 30.4, and appropriate work is shown, and “no,” and an appropriate justification is given.
- [2] Appropriate work is shown, but one computational or rounding error is made, but an appropriate answer and justification are given.
- or*
- [2] 30.4, and appropriate work is shown, and “no,” but no justification or an incorrect justification is given.
- [1] Appropriate work is shown, but two or more computational or rounding errors are made, but an appropriate answer and justification are given.
- or*
- [1] Appropriate work is shown, but one conceptual error is made, but an appropriate answer and justification are given.
- or*
- [1] 30.4 and “no,” but no work is shown, and no justification or an incorrect justification is given.
- [0] “No,” but no work is shown, and no justification or an incorrect justification is given.
- or*
- [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

INTEGRATED ALGEBRA – *continued*

- (36) [3] Greg, and appropriate work is shown to justify the answer.
- [2] Appropriate work is shown, but one computational error is made, but an appropriate name is stated.
- or*
- [2] Appropriate work is shown computing both rates, but Greg is not stated to have the faster rate.
- [1] Appropriate work is shown, but two or more computational errors are made, but an appropriate name is stated.
- or*
- [1] Appropriate work is shown, but one conceptual error is made, but an appropriate name is stated.
- or*
- [1] Appropriate work is shown to determine one of the rates, but no further correct work is shown.
- [0] Greg, but no work is shown.
- or*
- [0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.
-

Part IV

For each question, use the specific criteria to award a maximum of four credits. Unless otherwise specified, mathematically correct alternative solutions should be awarded appropriate credit.

(37) [4] $\frac{x-7}{3x}$, and appropriate work is shown.

[3] Appropriate work is shown, but one computational, factoring, or simplification error is made.

[2] Appropriate work is shown, but two or more computational, factoring, or simplification errors are made.

or

[2] Appropriate work is shown, but one conceptual error is made, such as not multiplying by the reciprocal.

or

[2] All numerators and denominators are factored correctly, but no further correct work is shown.

[1] Appropriate work is shown, but one conceptual error and one computational, factoring, or simplification error are made.

or

[1] $\frac{x-7}{3x}$, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

INTEGRATED ALGEBRA – *continued*

(38) [4] Both equations are graphed correctly, and at least one is labeled, and $(1,-3)$ is stated.

[3] Appropriate work is shown, but one computational, graphing, or labeling error is made, but an appropriate point of intersection is stated.

or

[3] Both equations are graphed correctly and at least one is labeled, but the point of intersection is not stated or is stated incorrectly.

[2] Appropriate work is shown, but two or more computational, graphing, or labeling errors are made, but an appropriate point of intersection is stated.

or

[2] Appropriate work is shown, but one conceptual error is made, but an appropriate point of intersection is stated.

or

[2] Both equations are graphed correctly, but neither is labeled, and the point of intersection is not stated or is stated incorrectly.

or

[2] $(1,-3)$, but a method other than graphic is used.

[1] Appropriate work is shown, but one conceptual error and one computational, graphing, or labeling error are made, but an appropriate point of intersection is stated.

or

[1] One line is graphed and labeled correctly, but no further correct work is shown.

or

[1] $(1,-3)$, but no work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

INTEGRATED ALGEBRA – *continued*

(39) [4] A box-and-whisker plot is constructed correctly, where the minimum = 66, the first quartile = 72.5, the median = 85, the third quartile = 90, and the maximum = 95.

[3] A box-and-whisker plot is constructed, but one computational or graphing error is made.

[2] A box-and-whisker plot is constructed, but two or more computational or graphing errors are made.

or

[2] A box-and-whisker plot is constructed, but one conceptual error is made.

[1] A box-and-whisker plot is constructed, but one conceptual error and one computational or graphing error are made.

or

[1] A box-and-whisker plot is constructed, but only two of the statistical measures, the first quartile, the median, or the third quartile are found.

or

[1] Minimum = 66, first quartile = 72.5, median = 85, third quartile = 90, and maximum = 95 are found, but no further correct work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously incorrect procedure.

Map to Learning Standards

Key Ideas	Item Numbers
Number Sense and Operations	22, 23, 35
Algebra	1, 2, 3, 4, 6, 9, 11, 12, 13, 14, 15, 17, 18, 20, 21, 27, 28, 29, 31, 34, 37
Geometry	16, 19, 24, 25, 32, 38
Measurement	26, 36
Statistics and Probability	5, 7, 8, 10, 30, 33, 39

Regents Examination in Integrated Algebra

August 2009

**Chart for Converting Total Test Raw Scores to
Final Examination Scores (Scaled Scores)**

The Chart for Determining the Final Examination Score for the August 2009 Regents Examination in Integrated Algebra will be posted on the Department’s web site <http://www.emsc.nysed.gov/osa/> on Thursday, August 13, 2009. Conversion charts provided for previous administrations of the Integrated Algebra examination must NOT be used to determine students’ final scores for this administration.

Submitting Teacher Evaluations of the Test to the Department

Suggestions and feedback from teachers provide an important contribution to the test development process. The Department provides an online evaluation form for State assessments. It contains spaces for teachers to respond to several specific questions and to make suggestions. Instructions for completing the evaluation form are as follows:

1. Go to www.emsc.nysed.gov/osa/exameval.
2. Select the test title.
3. Complete the required demographic fields.
4. Complete each evaluation question and provide comments in the space provided.
5. Click the SUBMIT button at the bottom of the page to submit the completed form.