

# INTEGRATED ALGEBRA

The University of the State of New York  
REGENTS HIGH SCHOOL EXAMINATION

# INTEGRATED ALGEBRA

SPECIAL ADMINISTRATION

Thursday, February 25, 2016 — 9:15 a.m. to 12:15 p.m., only

Student Name: \_\_\_\_\_

School Name: \_\_\_\_\_

The possession or use of any communications device is strictly prohibited when taking this examination. If you have or use any communications device, no matter how briefly, your examination will be invalidated and no score will be calculated for you.

Print your name and the name of your school on the lines above.

A separate answer sheet for Part I has been provided to you. Follow the instructions from the proctor for completing the student information on your answer sheet.

This examination has four parts, with a total of 39 questions. You must answer all questions in this examination. Record your answers to the Part I multiple-choice questions on the separate answer sheet. Write your answers to the questions in Parts II, III, and IV directly in this booklet. All work should be written in pen, except graphs and drawings, which should be done in pencil. Clearly indicate the necessary steps, including appropriate formula substitutions, diagrams, graphs, charts, etc. The formulas that you may need to answer some questions in this examination are found at the end of the examination. This sheet is perforated so you may remove it from this booklet.

Scrap paper is not permitted for any part of this examination, but you may use the blank spaces in this booklet as scrap paper. A perforated sheet of scrap graph paper is provided at the end of this booklet for any question for which graphing may be helpful but is not required. You may remove this sheet from this booklet. Any work done on this sheet of scrap graph paper will *not* be scored.

When you have completed the examination, you must sign the statement printed at the end of the answer sheet, indicating that you had no unlawful knowledge of the questions or answers prior to the examination and that you have neither given nor received assistance in answering any of the questions during the examination. Your answer sheet cannot be accepted if you fail to sign this declaration.

Notice...

A graphing calculator and a straightedge (ruler) must be available for you to use while taking this examination.

DO NOT OPEN THIS EXAMINATION BOOKLET UNTIL THE SIGNAL IS GIVEN.

**Part I**

**Answer all 30 questions in this part. Each correct answer will receive 2 credits. No partial credit will be allowed. For each question, write on the separate answer sheet the numeral preceding the word or expression that best completes the statement or answers the question. [60]**

**Use this space for computations.**

**1** If  $h$  represents a number, which equation is a correct translation of “Sixty more than 9 times a number is 375”?

- (1)  $9h = 375$                       (3)  $9h - 60 = 375$   
(2)  $9h + 60 = 375$                 (4)  $60h + 9 = 375$

**2** Which expression is equivalent to  $9x^2 - 16$ ?

- (1)  $(3x + 4)(3x - 4)$               (3)  $(3x + 8)(3x - 8)$   
(2)  $(3x - 4)(3x - 4)$               (4)  $(3x - 8)(3x - 8)$

**3** Which expression represents  $(3x^2y^4)(4xy^2)$  in simplest form?

- (1)  $12x^2y^8$                           (3)  $12x^3y^8$   
(2)  $12x^2y^6$                           (4)  $12x^3y^6$

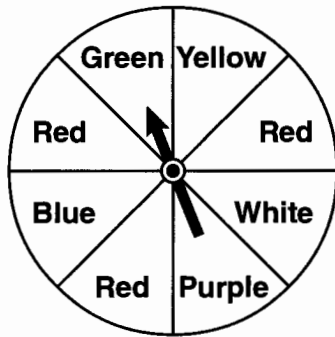
**4** An online music club has a one-time registration fee of \$13.95 and charges \$0.49 to buy each song. If Emma has \$50.00 to join the club and buy songs, what is the maximum number of songs she can buy?

- (1) 73                                      (3) 130  
(2) 74                                      (4) 131



Use this space for computations.

7 The spinner below is divided into eight equal regions and is spun once. What is the probability of *not* getting red?



(1)  $\frac{3}{5}$

(3)  $\frac{5}{8}$

(2)  $\frac{3}{8}$

(4)  $\frac{7}{8}$

8 Which relationship can best be described as causal?

- (1) height and intelligence
- (2) shoe size and running speed
- (3) number of correct answers on a test and test score
- (4) number of students in a class and number of students with brown hair

9 Solve for  $x$ :  $\frac{3}{5}(x + 2) = x - 4$

(1) 8

(3) 15

(2) 13

(4) 23

Use this space for  
computations.

10 Erica is conducting a survey about the proposed increase in the sports budget in the Hometown School District. Which survey method would likely contain the *most* bias?

- (1) Erica asks every third person entering the Hometown Grocery Store.
- (2) Erica asks every third person leaving the Hometown Shopping Mall this weekend.
- (3) Erica asks every fifth student entering Hometown High School on Monday morning.
- (4) Erica asks every fifth person leaving Saturday's Hometown High School football game.

11 Which equation represents a line parallel to the  $x$ -axis?

- |               |              |
|---------------|--------------|
| (1) $y = -5$  | (3) $x = 3$  |
| (2) $y = -5x$ | (4) $x = 3y$ |

12 Given:

$A = \{\text{All even integers from 2 to 20, inclusive}\}$

$B = \{10, 12, 14, 16, 18\}$

What is the complement of set  $B$  within the universe of set  $A$ ?

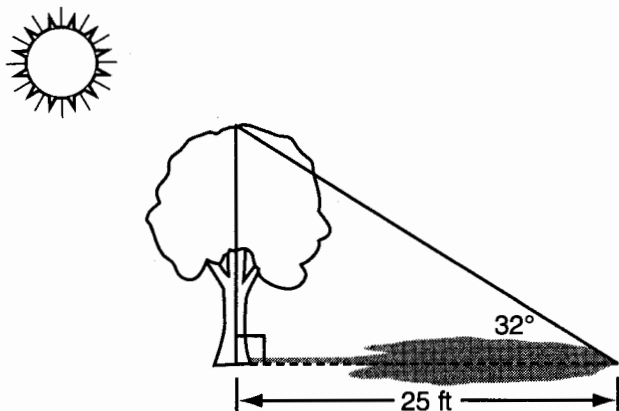
- |                      |                          |
|----------------------|--------------------------|
| (1) $\{4, 6, 8\}$    | (3) $\{4, 6, 8, 20\}$    |
| (2) $\{2, 4, 6, 8\}$ | (4) $\{2, 4, 6, 8, 20\}$ |

13 Which value of  $x$  is in the solution set of the inequality  $-2(x - 5) < 4$ ?

- |       |       |
|-------|-------|
| (1) 0 | (3) 3 |
| (2) 2 | (4) 5 |

Use this space for  
computations.

- 14 A tree casts a 25-foot shadow on a sunny day, as shown in the diagram below.



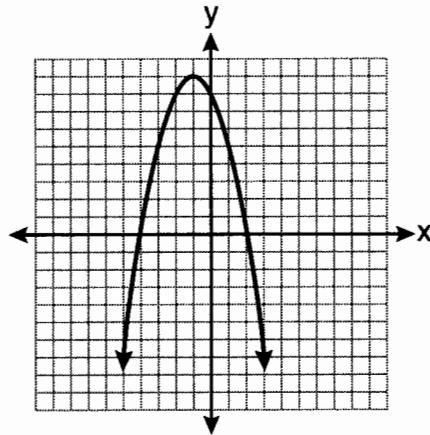
If the angle of elevation from the tip of the shadow to the top of the tree is  $32^\circ$ , what is the height of the tree to the *nearest tenth of a foot*?

- (1) 13.2                                      (3) 21.2  
(2) 15.6                                      (4) 40.0
- 15 What is the slope of the line that passes through the points  $(-5,4)$  and  $(15,-4)$ ?

- (1)  $-\frac{2}{5}$                                       (3)  $-\frac{5}{2}$   
(2) 0    (4) undefined

16 The equation  $y = -x^2 - 2x + 8$  is graphed on the set of axes below.

Use this space for  
computations.



Based on this graph, what are the roots of the equation  $-x^2 - 2x + 8 = 0$ ?

- (1) 8 and 0
- (2) 2 and -4
- (3) 9 and -1
- (4) 4 and -2

17 What is the sum of  $\frac{3}{2x}$  and  $\frac{4}{3x}$  expressed in simplest form?

- (1)  $\frac{12}{6x^2}$
- (2)  $\frac{17}{6x}$
- (3)  $\frac{7}{5x}$
- (4)  $\frac{17}{12x}$





Use this space for  
computations.

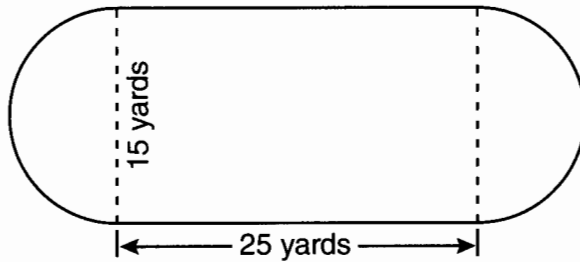
22 When  $5\sqrt{20}$  is written in simplest radical form, the result is  $k\sqrt{5}$ .  
What is the value of  $k$ ?

- (1) 20                                      (3) 7  
(2) 10                                      (4) 4

23 What is the value of the expression  $|-5x + 12|$  when  $x = 5$ ?

- (1) -37                                      (3) 13  
(2) -13                                      (4) 37

24 A playground in a local community consists of a rectangle and two semicircles, as shown in the diagram below.

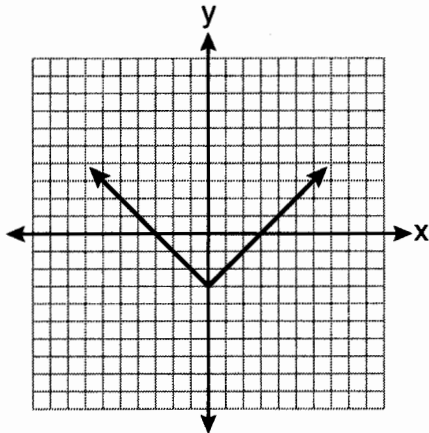


Which expression represents the amount of fencing, in yards, that would be needed to completely enclose the playground?

- (1)  $15\pi + 50$                               (3)  $30\pi + 50$   
(2)  $15\pi + 80$                               (4)  $30\pi + 80$

Use this space for  
computations.

25 Which equation is represented by the graph below?



(1)  $y = x^2 - 3$

(3)  $y = |x| - 3$

(2)  $y = (x - 3)^2$

(4)  $y = |x - 3|$

26 Carrie bought new carpet for her living room. She calculated the area of the living room to be 174.2 square feet. The actual area was 149.6 square feet. What is the relative error of the area to the nearest ten-thousandth?

(1) 0.1412

(3) 1.8588

(2) 0.1644

(4) 2.1644

27 What is an equation of the line that passes through the point (3,-1) and has a slope of 2?

(1)  $y = 2x + 5$

(3)  $y = 2x - 4$

(2)  $y = 2x - 1$

(4)  $y = 2x - 7$

Use this space for computations.

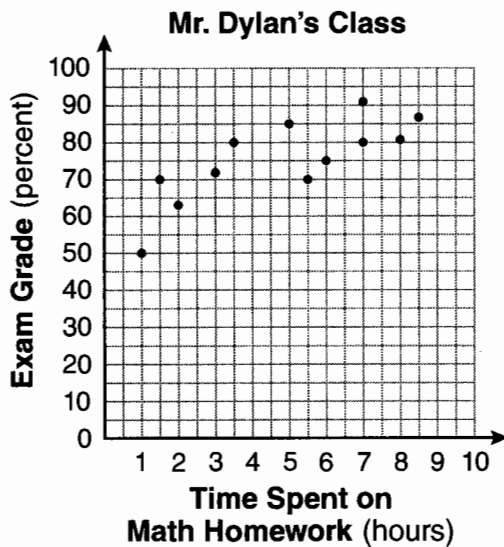
28 The ages of three brothers are consecutive even integers. Three times the age of the youngest brother exceeds the oldest brother's age by 48 years. What is the age of the *youngest* brother?

- (1) 14
- (2) 18
- (3) 22
- (4) 26

29 Cassandra bought an antique dresser for \$500. If the value of her dresser increases 6% annually, what will be the value of Cassandra's dresser at the end of 3 years to the *nearest dollar*?

- (1) \$415
- (2) \$590
- (3) \$596
- (4) \$770

30 The number of hours spent on math homework each week and the final exam grades for twelve students in Mr. Dylan's algebra class are plotted below.



Based on a line of best fit, which exam grade is the best prediction for a student who spends about 4 hours on math homework each week?

- (1) 62
- (2) 72
- (3) 82
- (4) 92

## Part II

Answer all 3 questions in this part. Each correct answer will receive 2 credits. Clearly indicate the necessary steps, including appropriate formula substitutions, diagrams, graphs, charts, etc. For all questions in this part, a correct numerical answer with no work shown will receive only 1 credit. All answers should be written in pen, except for graphs and drawings, which should be done in pencil. [6]

31 Chad complained to his friend that he had five equations to solve for homework. Are all of the homework problems equations? Justify your answer.

### Math Homework

1.  $3x^2 \cdot 2x^4$

2.  $5 - 2x = 3x$

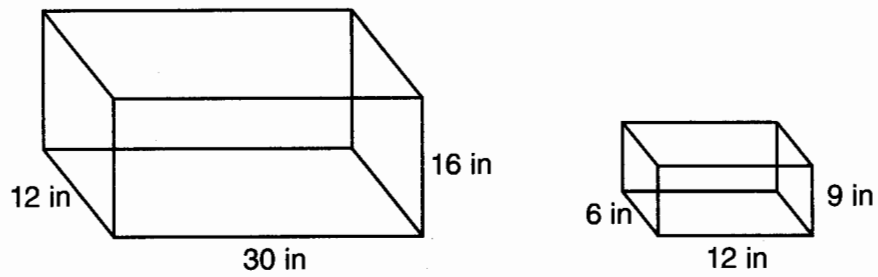
3.  $3(2x + 7)$

4.  $7x^2 + 2x - 3x^2 - 9$

5.  $\frac{2}{3} = \frac{x+2}{6}$

Name Chad

32 The diagram below represents Joe's two fish tanks.



Joe's larger tank is completely filled with water. He takes water from it to completely fill the small tank. Determine how many cubic inches of water will remain in the larger tank.

**33** Clayton has three fair coins. Find the probability that he gets two tails and one head when he flips the three coins.

Part III

Answer all 3 questions in this part. Each correct answer will receive 3 credits. Clearly indicate the necessary steps, including appropriate formula substitutions, diagrams, graphs, charts, etc. For all questions in this part, a correct numerical answer with no work shown will receive only 1 credit. All answers should be written in pen, except for graphs and drawings, which should be done in pencil. [9]

- 34 Find algebraically the equation of the axis of symmetry and the coordinates of the vertex of the parabola whose equation is  $y = -2x^2 - 8x + 3$ .

**35** At the end of week one, a stock had increased in value from \$5.75 a share to \$7.50 a share. Find the percent of increase at the end of week one to the *nearest tenth of a percent*.

At the end of week two, the same stock had decreased in value from \$7.50 to \$5.75. Is the percent of decrease at the end of week two the same as the percent of increase at the end of week one? Justify your answer.



36 The chart below compares two runners.

Runner	Distance, in miles	Time, in hours
Greg	11	2
Dave	16	3

Based on the information in this chart, state which runner has the faster rate. Justify your answer.

Part IV

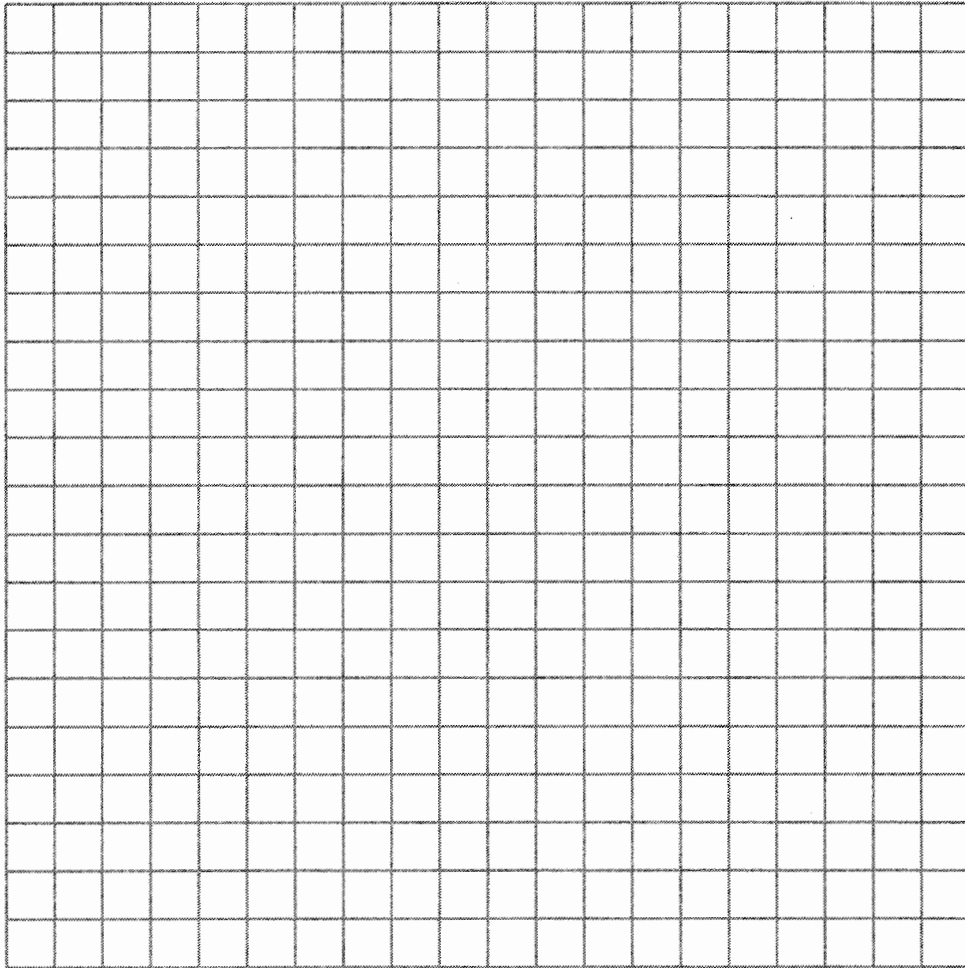
Answer all 3 questions in this part. Each correct answer will receive 4 credits. Clearly indicate the necessary steps, including appropriate formula substitutions, diagrams, graphs, charts, etc. For all questions in this part, a correct numerical answer with no work shown will receive only 1 credit. All answers should be written in pen, except for graphs and drawings, which should be done in pencil. [12]

37 Express in simplest form:  $\frac{2x^2 - 8x - 42}{6x^2} \div \frac{x^2 - 9}{x^2 - 3x}$

38 On the grid below, solve the system of equations graphically for  $x$  and  $y$ .

$$4x - 2y = 10$$

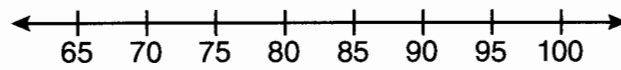
$$y = -2x - 1$$



**39** The test scores from Mrs. Gray's math class are shown below.

72, 73, 66, 71, 82, 85, 95, 85, 86, 89, 91, 92

Construct a box-and-whisker plot to display these data.



# FOR TEACHERS ONLY

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REGENTS HIGH SCHOOL EXAMINATION

## INTEGRATED ALGEBRA SPECIAL ADMINISTRATION

Thursday, February 25, 2016 — 9:15 a.m. to 12:15 p.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 Examinations in Mathematics*.

Do *not* attempt to correct the student's work by making insertions or changes of any kind. In scoring the open-ended questions, 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. No one teacher is to score more than approximately one-third of the open-ended questions on a student's paper. Teachers may not score their own students' answer papers. On the student's separate answer sheet, for each question, record the number of credits earned and the teacher's assigned rater/scorer letter.

**Schools are not permitted to rescore any of the open-ended questions on this exam after each question has been rated once, regardless of the final exam score. Schools are required to ensure that the raw scores have been added correctly and that the resulting scale score has been determined accurately.**

Raters should record the student's scores for all questions and the total raw score on the student's separate answer sheet. Then the student's total raw score should be converted to a scale score by using the conversion chart that will be posted on the Department's web site at: <http://www.p12.nysed.gov/assessment/> on Thursday, February 25, 2016. Because scale score corresponding to raw scores in the conversion chart may change from one administration to another, it is crucial that, for each administration, the conversion chart provided for that administration be used to determine the student's final score. The student's scale score should be entered in the box provided on the student's separate answer sheet. The scale score is the student's final examination score.

If the student's responses for the multiple-choice questions are being hand scored prior to being scanned, the scorer must be careful not to make any marks on the answer sheet except to record the scores in the designated score boxes. Marks elsewhere on the answer sheet will interfere with the accuracy of the scanning.

### Part I

Allow a total of 60 credits, 2 credits for each of the following.

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

Updated information regarding the rating of this examination may be posted on the New York State Education Department's web site during the rating period. Check this web site at: <http://www.p12.nysed.gov/assessment/> and select the link "Scoring Information" for any recently posted information regarding this examination. This site should be checked before the rating process for this examination begins and several times throughout the Regents Examination period.

# General Rules for Applying Mathematics Rubrics

## I. General Principles for Rating

The rubrics for the constructed-response questions on the Regents Examination in Integrated Algebra are designed to provide a systematic, consistent method for awarding credit. The rubrics are not to be considered all-inclusive; it is impossible to anticipate all the different methods that students might use to solve a given problem. Each response must be rated carefully using the teacher's professional judgment and knowledge of mathematics; all calculations must be checked. The specific rubrics for each question must be applied consistently to all responses. In cases that are not specifically addressed in the rubrics, raters must follow the general rating guidelines in the publication *Information Booklet for Scoring the Regents Examinations in Mathematics*, use their own professional judgment, confer with other mathematics teachers, and/or contact the State Education Department for guidance. During each Regents Examination administration period, rating questions may be referred directly to the Education Department. The contact numbers are sent to all schools before each administration period.

## II. Full-Credit Responses

A full-credit response provides a complete and correct answer to all parts of the question. Sufficient work is shown to enable the rater to determine how the student arrived at the correct answer.

When the rubric for the full-credit response includes one or more examples of an acceptable method for solving the question (usually introduced by the phrase “such as”), it does not mean that there are no additional acceptable methods of arriving at the correct answer. Unless otherwise specified, mathematically correct alternative solutions should be awarded credit. The only exceptions are those questions that specify the type of solution that must be used; e.g., an algebraic solution or a graphic solution. A correct solution using a method other than the one specified is awarded half the credit of a correct solution using the specified method.

## III. Appropriate Work

*Full-Credit Responses:* The directions in the examination booklet for all the constructed-response questions state: “Clearly indicate the necessary steps, including appropriate formula substitutions, diagrams, graphs, charts, etc.” The student has the responsibility of providing the correct answer **and** showing how that answer was obtained. The student must “construct” the response; the teacher should not have to search through a group of seemingly random calculations scribbled on the student paper to ascertain what method the student may have used.

*Responses With Errors:* Rubrics that state “Appropriate work is shown, but...” are intended to be used with solutions that show an essentially complete response to the question but contain certain types of errors, whether computational, rounding, graphing, or conceptual. If the response is incomplete; i.e., an equation is written but not solved or an equation is solved but not all of the parts of the question are answered, appropriate work has **not** been shown. Other rubrics address incomplete responses.

## IV. Multiple Errors

*Computational Errors, Graphing Errors, and Rounding Errors:* Each of these types of errors results in a 1-credit deduction. Any combination of two of these types of errors results in a 2-credit deduction. No more than 2 credits should be deducted for such mechanical errors in any response. The teacher must carefully review the student's work to determine what errors were made and what type of errors they were.

*Conceptual Errors:* A conceptual error involves a more serious lack of knowledge or procedure. Examples of conceptual errors include using the incorrect formula for the area of a figure, choosing the incorrect trigonometric function, or multiplying the exponents instead of adding them when multiplying terms with exponents. A response with one conceptual error can receive no more than half credit.

If a response shows repeated occurrences of the same conceptual error, the student should not be penalized twice. If the same conceptual error is repeated in responses to other questions, credit should be deducted in each response.

If a response shows two (or more) different major conceptual errors, it should be considered completely incorrect and receive no credit.

If a response shows one conceptual error and one computational, graphing, or rounding error, the teacher must award credit that takes into account both errors; i.e., awarding half credit for the conceptual error and deducting 1 credit for each mechanical error (maximum of two deductions for mechanical errors).

## Part II

For each question, use the specific criteria to award a maximum of 2 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 “no” is not indicated.
- or*
- [1] An appropriate justification is given, but the question is answered incorrectly.
- [0] No, but the justification is missing or 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.
- 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.



(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.

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### Part III

For each question, use the specific criteria to award a maximum of 3 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 found, 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.

*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]  $x = -2$  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.

- (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.

- (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 4 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.

- (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.

- (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 Core Curriculum

Content Strands	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

February 2016

### Chart for Converting Total Test Raw Scores to Final Examination Scores (Scale Scores)

**The Chart for Determining the Final Examination Score for the February 2016 Regents Examination in Integrated Algebra will be posted on the Department's web site at: <http://www.p12.nysed.gov/assessment/> on Thursday, February 25, 2016. Conversion charts provided for previous administrations of the Regents Examination in Integrated Algebra must NOT be used to determine students' final scores for this administration.**

### Online Submission of 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 <http://www.forms2.nysed.gov/emsc/osa/exameval/reexameval.cfm>.
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.



## Regents Examination in Integrated Algebra – February 2016

### Special Administration

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

Raw Score	Scale Score	Raw Score	Scale Score	Raw Score	Scale Score	Raw Score	Scale Score
87	100	65	84	43	75	21	52
86	98	64	84	42	75	20	51
85	97	63	83	41	74	19	49
84	96	62	83	40	73	18	47
83	95	61	83	39	73	17	45
82	94	60	82	38	72	16	43
81	93	59	82	37	71	15	41
80	92	58	82	36	71	14	39
79	91	57	81	35	70	13	36
78	90	56	81	34	69	12	34
77	90	55	81	33	68	11	32
76	89	54	80	32	67	10	29
75	88	53	80	31	66	9	27
74	88	52	79	30	65	8	24
73	87	51	79	29	64	7	21
72	87	50	79	28	62	6	18
71	86	49	78	27	61	5	15
70	86	48	78	26	60	4	12
69	86	47	77	25	58	3	9
68	85	46	77	24	57	2	6
67	84	45	76	23	55	1	3
66	84	44	76	22	54	0	0

To determine the student's final examination score, find the student's total test raw score in the column labeled "Raw Score" and then locate the scale score that corresponds to that raw score. The scale score is the student's final examination score. Enter this score in the space labeled "Scale Score" on the student's answer sheet.

**Schools are not permitted to rescore any of the open-ended questions on this exam after each question has been rated once, regardless of the final exam score. Schools are required to ensure that the raw scores have been added correctly and that the resulting scale score has been determined accurately.**

Because scale scores corresponding to raw scores in the conversion chart change from one administration to another, it is crucial that for each administration the conversion chart provided for that administration be used to determine the student's final score. The chart above is usable only for this administration of the Regents Examination in Integrated Algebra.