

INTEGRATED ALGEBRA

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

INTEGRATED ALGEBRA

Wednesday, August 13, 2008 – 8:30 to 11:30 a.m., only

Print Your Name:

Print Your School's Name:

Print your name and the name of your school in the boxes above. Then turn to the last page of this booklet, which is the answer sheet for Part I. Fold the last page along the perforations and, slowly and carefully, tear off the answer sheet. Then fill in the heading of your answer sheet.

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. All work should be written in pen, except graphs and drawings, which should be done in pencil.

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.

This examination has four parts, with a total of 39 questions. You must answer all questions in this examination. Write 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. Clearly indicate the necessary steps, including appropriate formula substitutions, diagrams, graphs, charts, etc.

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.

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

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

Part I

Answer all 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 Which value of p is the solution of $5p - 1 = 2p + 20$?

(1) $\frac{19}{7}$

(3) 3

(2) $\frac{19}{3}$

(4) 7

2 The statement $2 + 0 = 2$ is an example of the use of which property of real numbers?

(1) associative

(3) additive inverse

(2) additive identity

(4) distributive

3 Mrs. Smith wrote “Eight less than three times a number is greater than fifteen” on the board. If x represents the number, which inequality is a correct translation of this statement?

(1) $3x - 8 > 15$

(3) $8 - 3x > 15$

(2) $3x - 8 < 15$

(4) $8 - 3x < 15$

**Use this space for
computations.**

4 Which statement is true about the data set 3, 4, 5, 6, 7, 7, 10?

- (1) mean = mode (3) mean = median
(2) mean > mode (4) mean < median

5 Which value of x is in the solution set of the inequality $-4x + 2 > 10$?

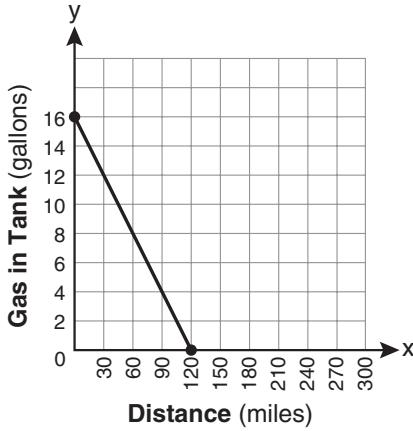
- (1) -2 (3) 3
(2) 2 (4) -4

6 Factored completely, the expression $2x^2 + 10x - 12$ is equivalent to

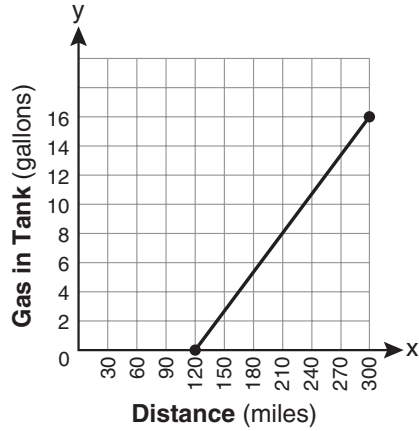
- (1) $2(x - 6)(x + 1)$ (3) $2(x + 2)(x + 3)$
(2) $2(x + 6)(x - 1)$ (4) $2(x - 2)(x - 3)$

Use this space for computations.

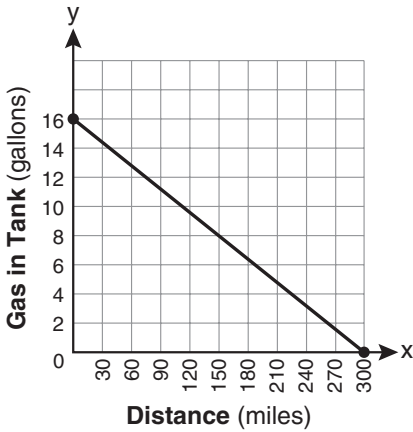
7 The gas tank in a car holds a total of 16 gallons of gas. The car travels 75 miles on 4 gallons of gas. If the gas tank is full at the beginning of a trip, which graph represents the rate of change in the amount of gas in the tank?



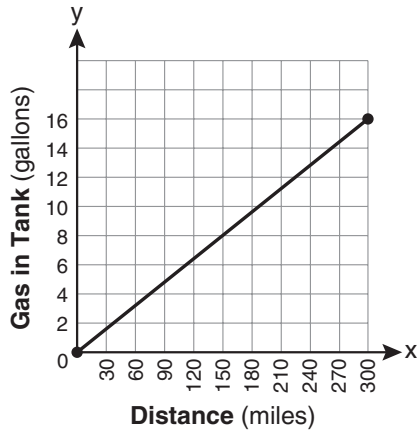
(1)



(3)



(2)



(4)

8 If $3ax + b = c$, then x equals

(1) $c - b + 3a$

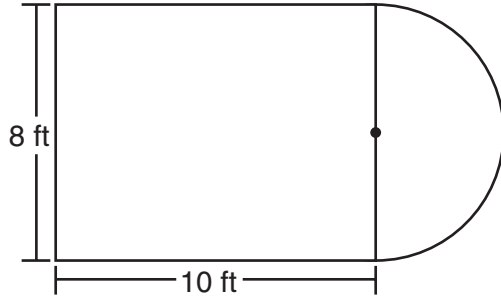
(3) $\frac{c - b}{3a}$

(2) $c + b - 3a$

(4) $\frac{b - c}{3a}$

**Use this space for
computations.**

- 15** Luis is going to paint a basketball court on his driveway, as shown in the diagram below. This basketball court consists of a rectangle and a semicircle.



Which expression represents the area of this basketball court, in square feet?

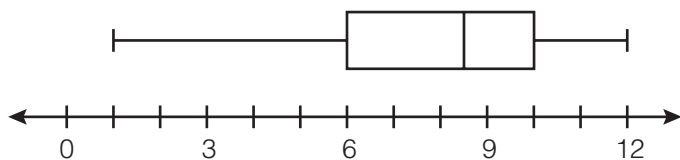
- (1) 80
(2) $80 + 8\pi$
(3) $80 + 16\pi$
(4) $80 + 64\pi$
- 16** John is going to line up his four golf trophies on a shelf in his bedroom. How many different possible arrangements can he make?
- (1) 24
(2) 16
(3) 10
(4) 4

Use this space for
computations.

17 A rectangle has an area of 24 square units. The width is 5 units less than the length. What is the length, in units, of the rectangle?

- (1) 6 (3) 3
(2) 8 (4) 19

18 What is the value of the third quartile shown on the box-and-whisker plot below?



- (1) 6 (3) 10
(2) 8.5 (4) 12

19 When $3g^2 - 4g + 2$ is subtracted from $7g^2 + 5g - 1$, the difference is

- (1) $-4g^2 - 9g + 3$ (3) $4g^2 + 9g - 3$
(2) $4g^2 + g + 1$ (4) $10g^2 + g + 1$

20 Which value of x is the solution of $\frac{2x}{5} + \frac{1}{3} = \frac{7x-2}{15}$?

- (1) $\frac{3}{5}$ (3) 3
(2) $\frac{31}{26}$ (4) 7

Use this space for computations.

21 Which expression represents $\frac{25x - 125}{x^2 - 25}$ in simplest form?

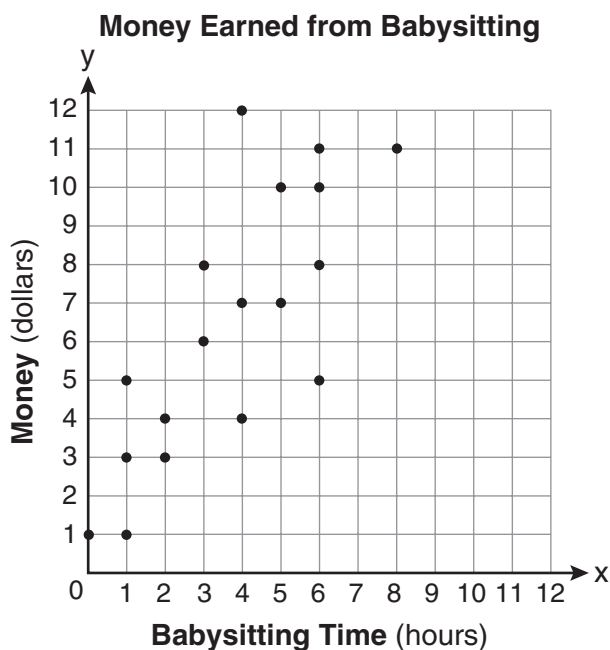
(1) $\frac{5}{x}$

(3) $\frac{25}{x - 5}$

(2) $\frac{-5}{x}$

(4) $\frac{25}{x + 5}$

22 Which equation most closely represents the line of best fit for the scatter plot below?



(1) $y = x$

(3) $y = \frac{3}{2}x + 4$

(2) $y = \frac{2}{3}x + 1$

(4) $y = \frac{3}{2}x + 1$

23 In a linear equation, the independent variable increases at a constant rate while the dependent variable decreases at a constant rate. The slope of this line is

(1) zero

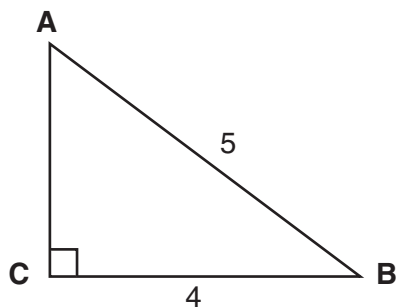
(3) positive

(2) negative

(4) undefined

Use this space for
computations.

- 24 Which equation could be used to find the measure of one acute angle in the right triangle shown below?



- (1) $\sin A = \frac{4}{5}$ (3) $\cos B = \frac{5}{4}$
(2) $\tan A = \frac{5}{4}$ (4) $\tan B = \frac{4}{5}$
- 25 Which ordered pair is in the solution set of the following system of inequalities?

$$y < \frac{1}{2}x + 4$$

$$y \geq -x + 1$$

- (1) (-5,3) (3) (3,-5)
(2) (0,4) (4) (4,0)
- 26 What is the product of $\frac{4x}{x-1}$ and $\frac{x^2-1}{3x+3}$ expressed in simplest form?

- (1) $\frac{4x}{3}$ (3) $\frac{4x^2}{3(x+1)}$
(2) $\frac{4x^2}{3}$ (4) $\frac{4(x+1)}{3}$

**Use this space for
computations.**

30 The faces of a cube are numbered from 1 to 6. If the cube is tossed once, what is the probability that a prime number or a number divisible by 2 is obtained?

(1) $\frac{6}{6}$

(3) $\frac{4}{6}$

(2) $\frac{5}{6}$

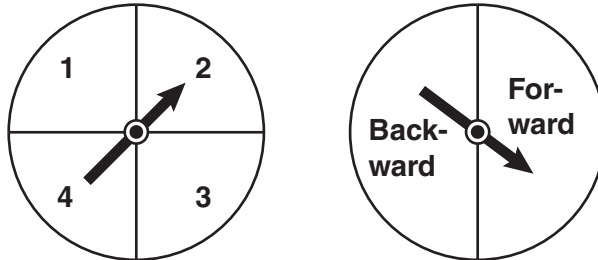
(4) $\frac{1}{6}$

Part II

Answer all 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. [6]

- 31 In a game of ice hockey, the hockey puck took 0.8 second to travel 89 feet to the goal line. Determine the average speed of the puck in feet per second.

32 Brianna is using the two spinners shown below to play her new board game. She spins the arrow on each spinner once. Brianna uses the first spinner to determine how many spaces to move. She uses the second spinner to determine whether her move from the first spinner will be forward or backward.



Find the probability that Brianna will move *fewer than* four spaces and *backward*.

33 Twelve players make up a high school basketball team. The team jerseys are numbered 1 through 12. The players wearing the jerseys numbered 3, 6, 7, 8, and 11 are the only players who start a game. Using set notation, list the complement of this subset.

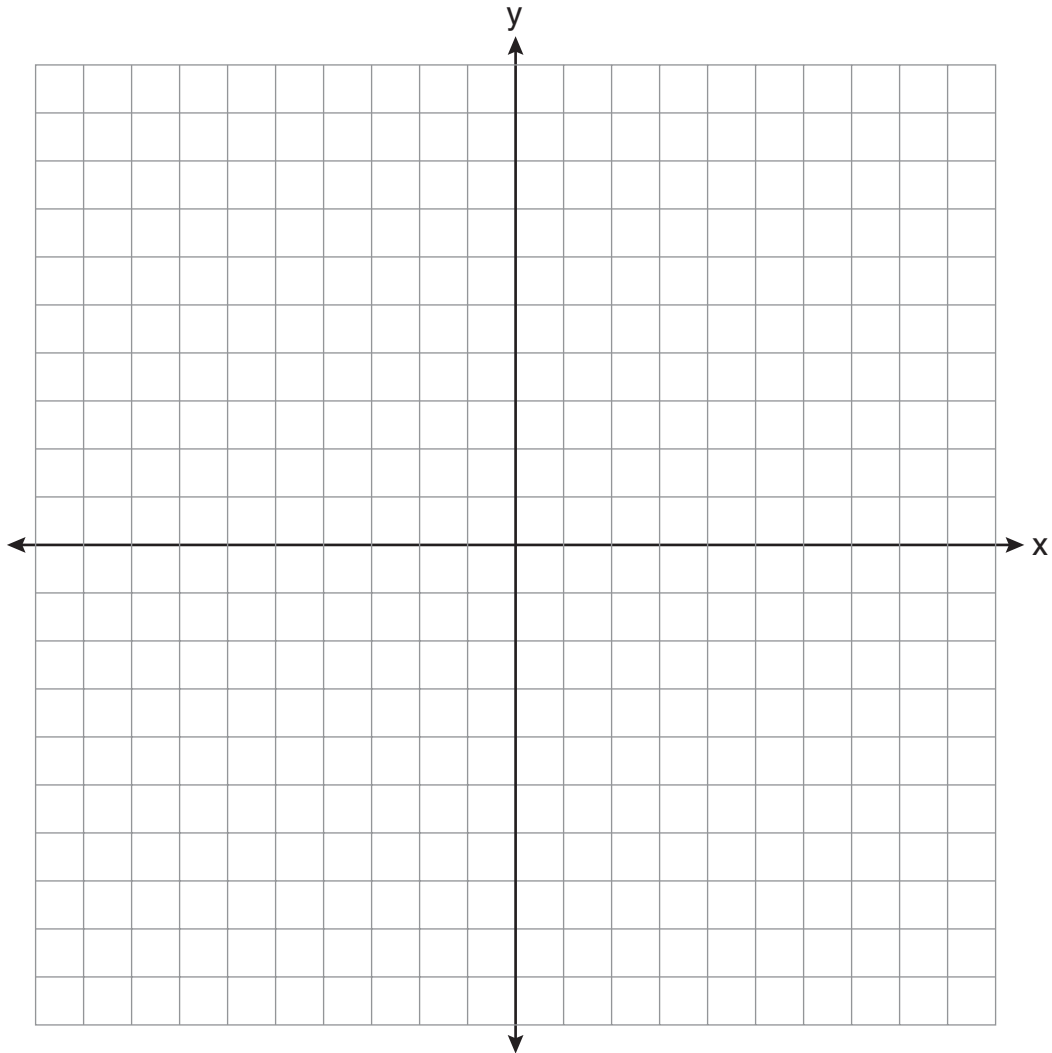
Part III

Answer all 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. [9]

34 Express the product of $3\sqrt{20}(2\sqrt{5} - 7)$ in simplest radical form.

35 On the set of axes below, draw the graph of $y = 2^x$ over the interval $-1 \leq x \leq 3$.

Will this graph ever intersect the x -axis? Justify your answer.



36 Write an equation that represents the line that passes through the points $(5,4)$ and $(-5,0)$.

Part IV

Answer all 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. [12]

- 37 The cost of 3 markers and 2 pencils is \$1.80. The cost of 4 markers and 6 pencils is \$2.90. What is the cost of *each* item? Include appropriate units in your answer.

38 Twenty students were surveyed about the number of days they played outside in one week. The results of this survey are shown below.

{6, 5, 4, 3, 0, 7, 1, 5, 4, 4, 3, 2, 2, 3, 2, 4, 3, 4, 0, 7}

Complete the frequency table below for these data.

Number of Days Outside

Interval	Tally	Frequency
0–1		
2–3		
4–5		
6–7		

Complete the cumulative frequency table below using these data.

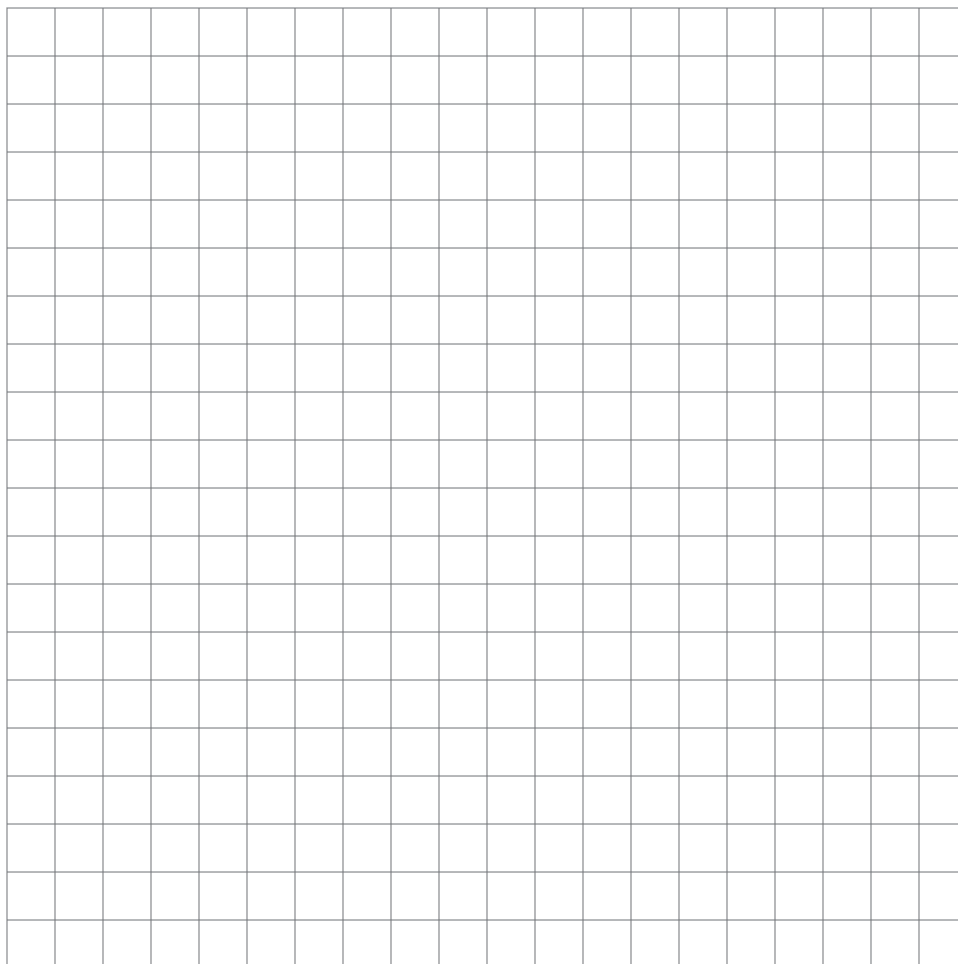
Number of Days Outside

Interval	Cumulative Frequency
0–1	
0–3	
0–5	
0–7	

This question continues on the next page.

Question 38 continued

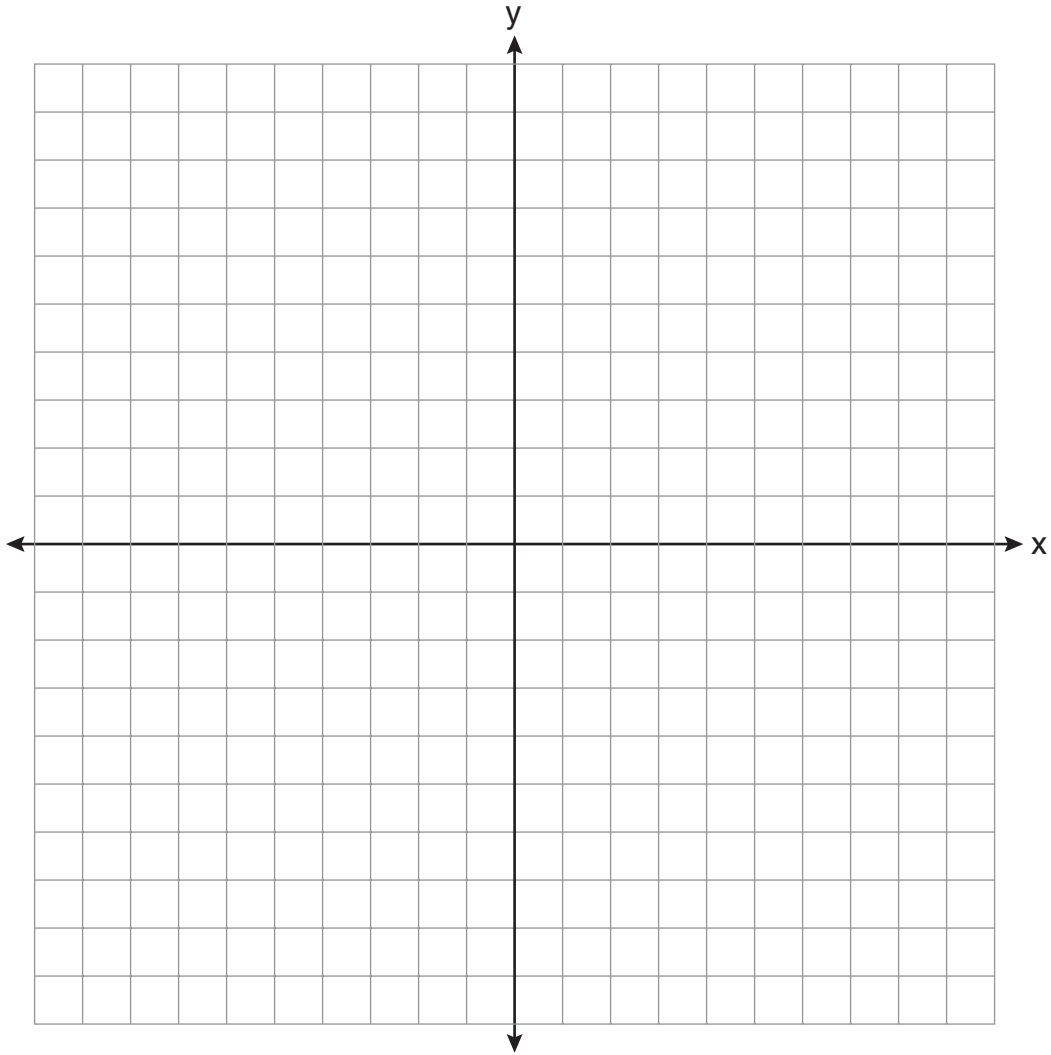
On the grid below, create a cumulative frequency histogram based on the table you made on the previous page.



39 On the set of axes below, solve the following system of equations graphically and state the coordinates of all points in the solution set.

$$y = x^2 + 4x - 5$$

$$y = x - 1$$



Reference Sheet

Trigonometric Ratios

$$\sin A = \frac{\textit{opposite}}{\textit{hypotenuse}}$$

$$\cos A = \frac{\textit{adjacent}}{\textit{hypotenuse}}$$

$$\tan A = \frac{\textit{opposite}}{\textit{adjacent}}$$

Area

trapezoid $A = \frac{1}{2}h(b_1 + b_2)$

Volume

cylinder $V = \pi r^2 h$

Surface Area

rectangular prism $SA = 2lw + 2hw + 2lh$

cylinder $SA = 2\pi r^2 + 2\pi rh$

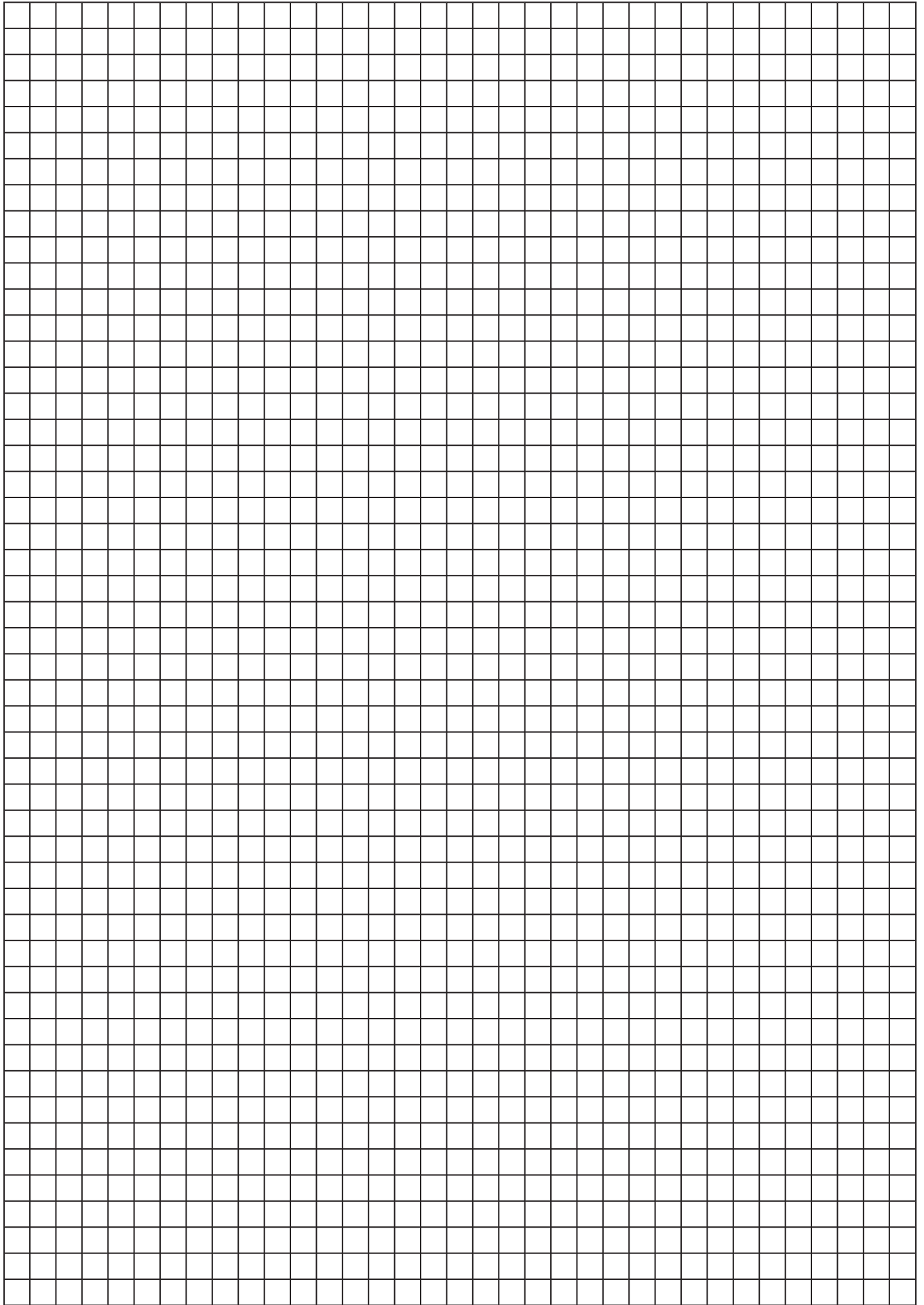
Coordinate Geometry

$$m = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$$

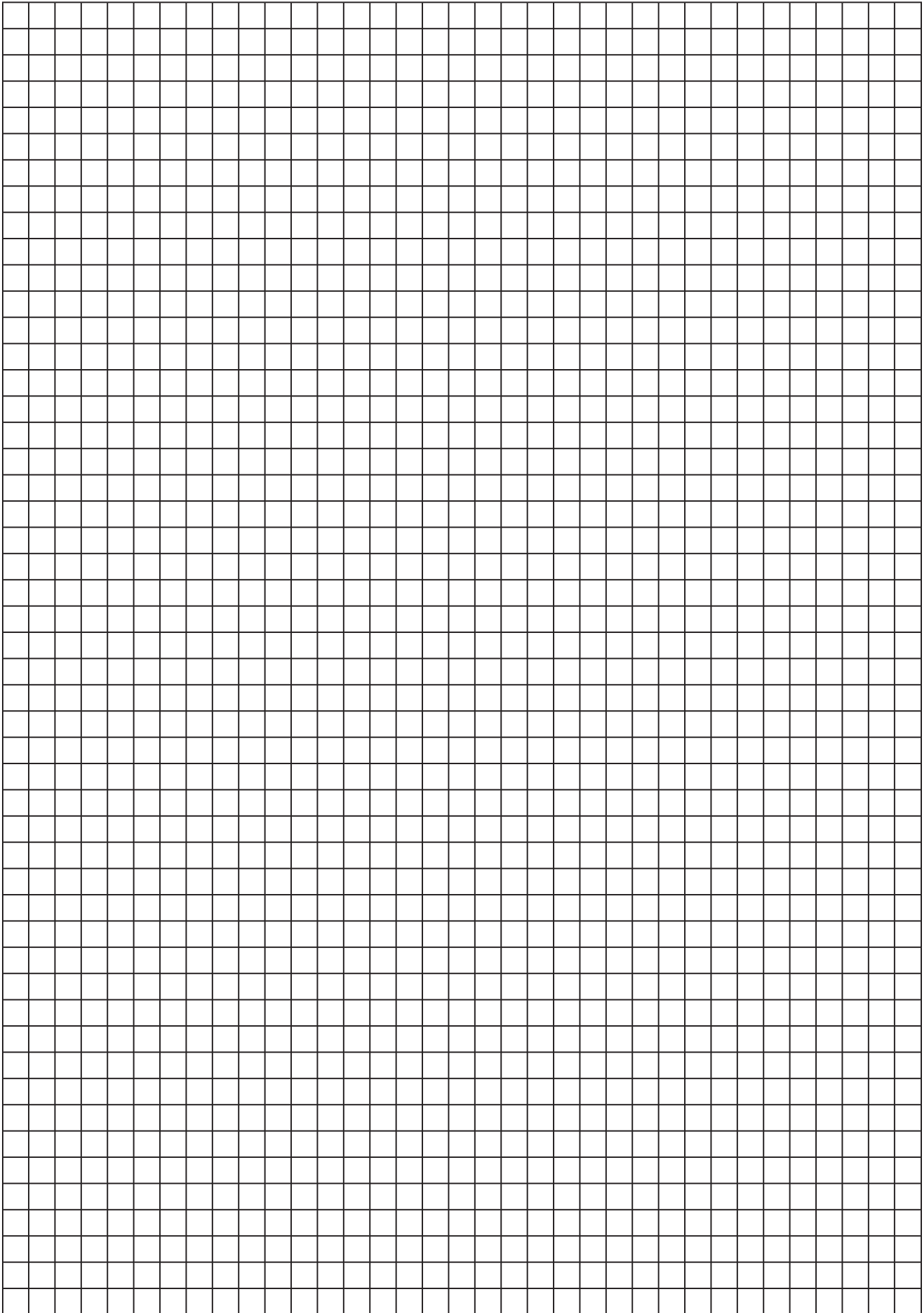
Scrap Graph Paper — This sheet will *not* be scored.

Tear Here

Tear Here



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Tear Here

Tear Here

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REGENTS HIGH SCHOOL EXAMINATION

INTEGRATED ALGEBRA

Wednesday, August 13, 2008 – 8:30 to 11:30 a.m., only

ANSWER SHEET

Student Sex: Male Female Grade

Teacher School

Your answers to Part I should be recorded on this answer sheet.

Part I

Answer all 30 questions in this part.

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

Your answers for Parts II, III, and IV should be written in the test booklet.

The declaration below should be signed when you have completed the examination.

I do hereby affirm, at the close of this examination, that I had no unlawful knowledge of the questions or answers prior to the examination and that I have neither given nor received assistance in answering any of the questions during the examination.

Signature

FOR TEACHERS ONLY

The University of the State of New York

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INTEGRATED ALGEBRA

Wednesday, August 13, 2008 — 8:30 to 11:30 a.m., only

SCORING KEY

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 Wednesday, August 13, 2008. 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) 4	(9) 4	(17) 2	(25) 4
(2) 2	(10) 2	(18) 3	(26) 1
(3) 1	(11) 2	(19) 3	(27) 4
(4) 3	(12) 2	(20) 4	(28) 1
(5) 4	(13) 1	(21) 4	(29) 3
(6) 2	(14) 3	(22) 4	(30) 2
(7) 2	(15) 2	(23) 2	
(8) 3	(16) 1	(24) 1	

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 <http://www.emsc.nysed.gov/osa/> and select the link “Examination 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 Examination in Integrated Algebra*, use their own professional judgment, confer with other mathematics teachers, and/or contact the consultants at 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, 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 two credits. Unless otherwise specified, mathematically correct alternative solutions should be awarded appropriate credit.

(31) [2] 111.25 or $111\frac{1}{4}$, and appropriate work is shown.

[1] Appropriate work is shown, but the answer is rounded.

or

[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] 111.25, 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.

(32) [2] $\frac{3}{8}$ or 0.375, and appropriate work is shown.

[1] Appropriate work is shown, but the answer is rounded.

or

[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] $\frac{3}{8}$, 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]** {1, 2, 4, 5, 9, 10, 12} or $\{x \mid x = 1, 2, 4, 5, 9, 10, 12\}$

[1] 1, 2, 4, 5, 9, 10, 12, but set notation is not used.

or

[1] Set notation is used and at least five correct numbers (but not the entire set) are written.

[0] Set notation is used, but fewer than five correct numbers are written.

or

[0] {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12}

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 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] $60 - 42\sqrt{5}$, and appropriate work is shown.

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

or

[2] Appropriate work is shown, but only one term is expressed in simplest radical form.

[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] Appropriate work is shown, but the answer is expressed as a decimal.

or

[1] The distributive property is correctly applied, yielding $6\sqrt{100} - 21\sqrt{20}$, but no further correct work is shown.

or

[1] $60 - 42\sqrt{5}$, 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*

(35) [3] A correct graph is drawn over the given interval, the function is identified as one that will not intersect the x -axis, and an appropriate justification is given.

[2] Appropriate work is shown, but one graphing error is made, but an appropriate answer and justification are given.

or

[2] A correct graph is drawn over the given interval, but no further correct work is shown.

[1] Appropriate work is shown, but two or more graphing 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.

[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] $y - 4 = \frac{2}{5}(x - 5)$ or $y = \frac{2}{5}x + 2$ or an equivalent equation, and appropriate work is shown.

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

or

[2] Appropriate work is shown to find the slope and y -intercept, but an equation is not written or is written incorrectly.

[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] Appropriate work is shown to find the slope or y -intercept, but an equation is not written or is written incorrectly.

or

[1] $y - 4 = \frac{2}{5}(x - 5)$ or $y = \frac{2}{5}x + 2$, 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 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] A marker = \$.50 or 50¢ and a pencil = \$.15 or 15¢, and appropriate work is shown, such as solving a system of equations algebraically or by trial and error with at least three trials and appropriate checks.

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

or

[3] Appropriate work is shown, but only the cost of a marker or a pencil is found, but appropriate units are written.

or

[3] Appropriate work is shown, but the correct answers are not labeled or are labeled incorrectly, but appropriate units are written.

or

[3] Appropriate work is shown, and the answers are labeled correctly, but the units are written incorrectly, such as a marker = .50¢.

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

or

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

or

[2] Appropriate work is shown, but the answers are not labeled or are labeled incorrectly, and the units are not written or are written incorrectly.

or

[2] An incorrect system of equations is written, but two appropriate answers are found and labeled, and appropriate units are written.

or

[2] The trial-and-error method is used to find the correct answers, but only two trials and appropriate checks are shown.

or

[2] The trial-and-error method is attempted and at least six systematic trials and appropriate checks are shown, but no answers are found.

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

or

[1] A correct system of equations is written, but no further correct work is shown.

or

INTEGRATED ALGEBRA – *continued*

[1] The trial-and-error method is used to find the correct answers, but only one trial with an appropriate check is shown.

or

[1] A marker = \$.50 or 50¢ and a pencil = \$.15 or 15¢, but no work is shown.

[0] One correct equation is written, but no further correct work is shown.

or

[0] Either the correct price of a marker or a pencil is stated, but no work is shown.

or

[0] The correct prices of the marker and pencil are found, but no work is shown, and the answers are not labeled or are labeled incorrectly.

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*

(38) [4] The tables are completed correctly, and a correct cumulative frequency histogram is drawn and labeled.

[3] The tables are completed correctly, but one graphing error is made on the cumulative frequency histogram.

or

[3] The tables are completed with one error, but an appropriate cumulative frequency histogram is drawn and labeled.

or

[3] The tables are completed correctly and a correct cumulative frequency histogram is drawn, but the histogram is not labeled or is labeled incorrectly.

[2] The tables are completed with two errors, but an appropriate cumulative frequency histogram is drawn and labeled.

or

[2] Appropriate work is shown, but one conceptual error is made, such as drawing a frequency histogram or a cumulative frequency bar graph.

or

[2] The tables are completed correctly, but no further correct work is shown.

[1] Appropriate work is shown, but one conceptual error and one graphing or labeling error are made on the cumulative frequency histogram.

or

[1] The frequency table is completed correctly, 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.

INTEGRATED ALGEBRA – *continued*

- (39) [4] Appropriate graphs are drawn, and $(1,0)$ and $(-4,-5)$ are stated.
- [3] Appropriate work is shown, but one graphing error is made, but appropriate solutions are stated.
- or***
- [3] Both graphs are drawn correctly, but only one solution is stated.
- [2] Appropriate work is shown, but two or more graphing errors are made, but appropriate solutions are stated.
- or***
- [2] Appropriate work is shown, but one conceptual error is made, such as graphing a line instead of a parabola, but appropriate solutions are stated.
- or***
- [2] Both graphs are drawn correctly, but no solutions are stated.
- or***
- [2] $(1,0)$ and $(-4,-5)$ are found as the points of intersection, but a method other than graphic is used.
- [1] The system is solved algebraically for only the x values, y values, or the coordinates of one point.
- or***
- [1] Appropriate work is shown, but one graphing error and one conceptual error are made.
- or***
- [1] One graph is drawn correctly, but no further correct work is shown.
- or***
- [1] $(1,0)$ and $(-4,-5)$ are stated, but no work is shown.
- [0] $(1,0)$ or $(-4,-5)$ is stated, 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.
-

Map to Learning Standards

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

Regents Examination in Integrated Algebra

August 2008

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

The Chart for Determining the Final Examination Score for the August 2008 Regents Examination in Integrated Algebra will be posted on the Department’s web site <http://www.emsc.nysed.gov/osa/> on Wednesday, August 13, 2008. 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.



Regents Examination in Integrated Algebra August 2008

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

All student answer papers that receive a scale score of 60 through 64 **must** be scored a second time to ensure the accuracy of the score. For the second scoring, a different committee of teachers may score the student's paper or the original committee may score the paper, except that no teacher may score the same open-ended questions that he/she scored in the first rating of the paper.

Because scale scores corresponding to raw scores in the conversion chart change from one examination 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.