SPANISH EDITION
INTEGRATED ALGEBRA
WEDNESDAY, JUNE 12, 2013
1:15 to 4:15 P.M., ONLY

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

ÁLGEBRA INTEGRADA

Miércoles, 12 de junio de 2013 — 1:15 a 4:15 p.m., solamente

Nombre del estudiante: _____

Nombre de la escuela: _____

La posesión o el uso de cualquier aparato destinado a la comunicación están estrictamente prohibidos mientras esté realizando el examen. Si usted tiene o utiliza cualquier aparato destinado a la comunicación, aunque sea brevemente, su examen será invalidado y no se calculará su calificación.

Escriba en letra de molde su nombre y el nombre de su escuela en las líneas de arriba.

Se le ha proporcionado una hoja de respuestas separada para la Parte I. Siga las instrucciones del supervisor para completar la información del estudiante en su hoja de respuestas.

Este examen tiene cuatro partes, con un total de 39 preguntas. Usted debe responder todas las preguntas de este examen. Escriba sus respuestas a las preguntas de selección múltiple de la Parte I en la hoja de respuestas separada. Escriba sus respuestas a las preguntas de las Partes II, III y IV directamente en este folleto. Todo el trabajo debe ser realizado con bolígrafo de tinta permanente, con excepción de los gráficos y los dibujos, que deben hacerse con lápiz grafito. Indique claramente los pasos necesarios, incluyendo apropiadamente las sustituciones de fórmulas, diagramas, gráficos, tablas, etc. Las fórmulas que podría necesitar para responder a ciertas preguntas se encuentran al final de este examen. Esta hoja está perforada para que pueda desprenderla de este folleto.

No se permite el uso de papel de borrador para ninguna parte de este examen, pero puede usar los espacios en blanco en este folleto como papel de borrador. Una hoja perforada de papel cuadriculado de borrador está provista al final de este folleto para cualquier pregunta para la cual sea útil un gráfico, aunque no se requiere. Puede desprender esta hoja del folleto. Todo trabajo realizado en esta hoja de papel cuadriculado de borrador *no* será calificado.

Cuando haya terminado el examen, deberá firmar la declaración impresa al final de la hoja de respuestas, indicando que no tenía conocimiento ilegal previo de las preguntas o respuestas del examen y que no ha dado ni recibido asistencia alguna para responder a las preguntas durante el examen. Su hoja de respuestas no será aceptada si no firma dicha declaración.

Aviso...

Se le debe proporcionar una calculadora para hacer gráficos y una regla para que utilice mientras realiza el examen.

NO ABRA ESTE FOLLETO DE EXAMEN HASTA QUE SE LE INDIQUE.

Parte I

Responda las 30 preguntas de esta parte. Cada respuesta correcta recibirá 2 créditos. Escriba sus respuestas en la hoja de respuestas separada. [60]

Utilice este espacio para sus cálculos.

1 ¿Qué expresión representa "5 menos que el doble de x"?

(1) $2x - 5$

(2) $5 - 2x$

(3) $2(5 - x)$

(4) $2(x - 5)$

2 Gabriella tiene 20 monedas de 25 centavos, 15 monedas de 10 centavos, 7 monedas de 5 centavos y 8 monedas de 1 centavo en un frasco. Después de retirar 6 monedas de 25 centavos del frasco, ¿cuáles son las probabilidades de que Gabriella seleccione al azar una moneda de 25 centavos de las monedas que quedan en el frasco?

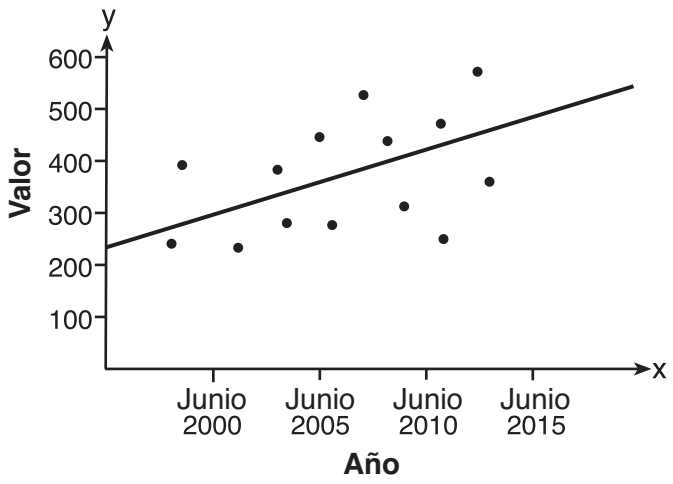
(1) $\frac{14}{44}$

(2) $\frac{30}{44}$

(3) $\frac{14}{50}$

(4) $\frac{20}{50}$

3 Basándose la siguiente línea de ajuste óptimo, ¿qué valor podría esperarse para los datos en junio del 2015?



(1) 230

(2) 310

(3) 480

(4) 540

Utilice este espacio para sus cálculos.

4 Si el punto $(5,k)$ se encuentra en la línea representada por la ecuación $2x + y = 9$, el valor de k es

(1) 1 (3) -1

(2) 2 (4) -2

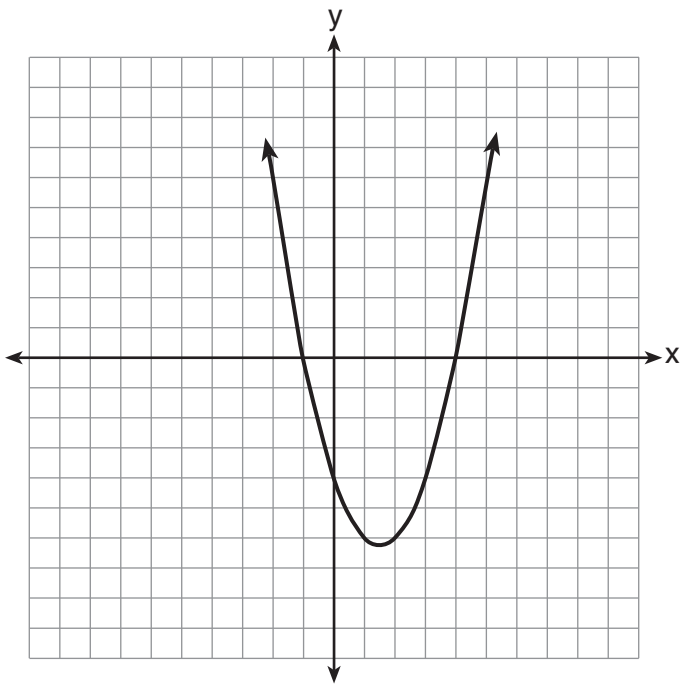
5 Un recipiente de refresco tiene capacidad para $5\frac{1}{2}$ galones de refresco. ¿Cuántas onzas de refresco tiene capacidad este recipiente?

1 cuarto de galón = 32 onzas 1 galón = 4 cuartos de galón

(1) 44 (3) 640

(2) 176 (4) 704

6 Las raíces de una ecuación cuadrática pueden encontrarse usando el siguiente gráfico.



¿Cuáles son las raíces de esta ecuación?

(1) -4, solamente (3) -1 y 4

(2) -4 y -1 (4) -4, -1 y 4

Utilice este espacio para sus cálculos.

7 Si el área de un rectángulo está representada por $x^2 + 8x + 15$ y su longitud está representada por $x + 5$, ¿qué expresión representa el ancho del rectángulo?

(1) $x + 3$
(2) $x - 3$
(3) $x^2 + 6x + 5$
(4) $x^2 + 7x + 10$

8 ¿Qué conjunto de datos describe una situación que podría calificarse como cualitativa?

(1) los colores de los pájaros del zoológico de la ciudad
(2) la talla del calzado de los cuidadores del zoológico de la ciudad
(3) la altura de las jirafas del zoológico de la ciudad
(4) el peso de los monos en el zoológico de la ciudad

9 El valor de la expresión $6! + \frac{5!(3!)}{4!} - 10$ es

(1) 50
(2) 102
(3) 740
(4) 750

10 ¿Qué notación por intervalos representa $-3 \leq x \leq 3$?

(1) $[-3, 3]$
(2) $(-3, 3]$
(3) $[-3, 3)$
(4) $(-3, 3)$

11 Las soluciones de $x^2 = 16x - 28$ son

(1) -2 y -14
(2) 2 y 14
(3) -4 y -7
(4) 4 y 7

Utilice este espacio para sus cálculos.

12 Si la expresión $(2y^a)^4$ es equivalente a $16y^8$, ¿cuál es el valor de a?

(1) 12

(2) 2

(3) 32

(4) 4

13 ¿Qué tabla muestra datos bivariados?

Edad (años)	**Frecuencia**
14	12
15	21
16	14
17	19
18	15

(1)

Tiempo de estudio (horas)	**Calificación del examen** (%)
1	65
2	72
3	83
4	85
5	92

(3)

Tipo de automóvil	**Consumo de gasolina promedio** (mpg)
furgoneta	25
todoterreno	23
de lujo	26
compacto	28
camioneta	22

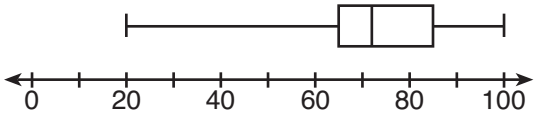
(2)

Día	**Temperatura** (grados F)
lunes	63
martes	58
miércoles	72
jueves	74
viernes	78

(4)

Utilice este espacio para sus cálculos.

14 El siguiente diagrama de caja y bigotes representa los resultados de los exámenes en una clase de matemáticas.



¿Qué representan los puntajes 65, 85 y 100?

(1) Q_1, mediana, Q_3

(2) Q_1, Q_3, máximo

(3) mediana, Q_1, máximo

(4) mínimo, mediana, máximo

15 La expresión $\frac{x-3}{x+2}$ es indefinida cuando el valor de x es

(1) -2, solamente

(2) -2 y 3

(3) 3, solamente

(4) -3 y 2

16 Si $rx - st = r$, ¿qué expresión representa x?

(1) $\frac{r+st}{r}$

(2) $\frac{r}{r+st}$

(3) $\frac{r}{r-st}$

(4) $\frac{r-st}{r}$

17 ¿Cuál es la solución de la ecuación $\frac{x+2}{2} = \frac{4}{x}$?

(1) 1 y -8

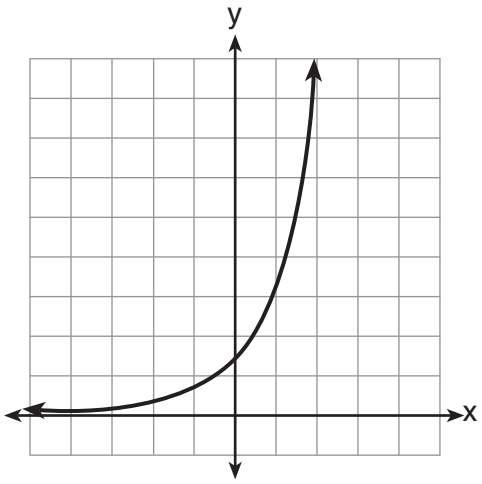
(2) 2 y -4

(3) -1 y 8

(4) -2 y 4

Utilice este espacio para sus cálculos.

18 ¿Qué tipo de función está graficada a continuación?



(1) lineal

(2) cuadrática

(3) exponencial

(4) de valor absoluto

19 ¿Cuál es la pendiente de la línea representada por la ecuación $4x + 3y = 12$?

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

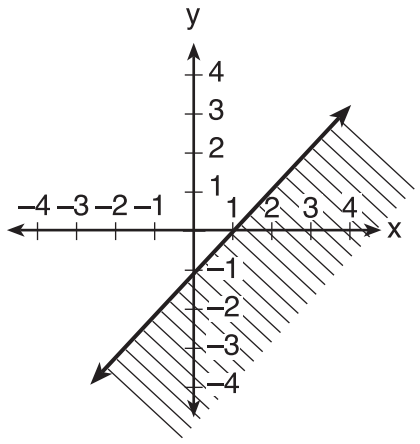
(2) $\frac{3}{4}$

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

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

Utilice este espacio para sus cálculos.

20 ¿A qué desigualdad corresponde el gráfico que muestra el siguiente diagrama?



(1) $y > x - 1$

(2) $y \geq x - 1$

(3) $y < x - 1$

(4) $y \leq x - 1$

21 Carol planea vender el doble de suscripciones de revistas que Jennifer. Si Carol y Jennifer necesitan vender al menos 90 suscripciones en total, ¿qué desigualdad podría usarse para determinar cuántas suscripciones, x, necesita vender Jennifer?

(1) $x \geq 45$

(2) $2x \geq 90$

(3) $2x - x \geq 90$

(4) $2x + x \geq 90$

22 Cuando $2x^2 - 3x + 2$ se resta de $4x^2 - 5x + 2$, el resultado es

(1) $2x^2 - 2x$

(2) $-2x^2 + 2x$

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

(4) $2x^2 - 8x + 4$

23 ¿Qué expresión representa la cantidad de horas en w semanas y d días?

(1) $7w + 12d$

(2) $84w + 24d$

(3) $168w + 24d$

(4) $168w + 60d$

Utilice este espacio para sus cálculos.

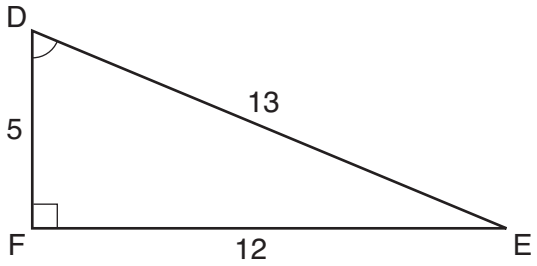
24 Dado:

$R = \{1, 2, 3, 4\}$
$A = \{0, 2, 4, 6\}$
$P = \{1, 3, 5, 7\}$

¿Cuál es $R \cap P$?

(1) $\{0, 1, 2, 3, 4, 5, 6, 7\}$
(2) $\{1, 2, 3, 4, 5, 7\}$
(3) $\{1, 3\}$
(4) $\{2, 4\}$

25 ¿Qué ecuación podría usarse para encontrar la medida del ángulo D en el triángulo rectángulo que aparece en el siguiente diagrama?



(1) $\cos D = \frac{12}{13}$
(2) $\cos D = \frac{13}{12}$
(3) $\text{sen } D = \frac{5}{13}$
(4) $\text{sen } D = \frac{12}{13}$

26 Si las raíces de una ecuación cuadrática son -2 y 3, la ecuación puede escribirse como

(1) $(x - 2)(x + 3) = 0$
(2) $(x + 2)(x - 3) = 0$
(3) $(x + 2)(x + 3) = 0$
(4) $(x - 2)(x - 3) = 0$

27 ¿Qué ecuación representa una línea que es paralela al eje y y pasa a través del punto (4,3)?

(1) $x = 3$
(2) $x = 4$
(3) $y = 3$
(4) $y = 4$

Utilice este espacio para sus cálculos.

28 En una clase hay 18 estudiantes. Cada día, el maestro selecciona tres estudiantes al azar para ayudar en un juego: un líder, un registrador y un cronometrador. ¿De cuántas formas posibles pueden asignarse los trabajos?

(1) 306
(2) 816
(3) 4896
(4) 5832

29 En el triángulo RST, el ángulo R es un ángulo recto. Si $TR = 6$ y $TS = 8$, ¿cuál es la longitud de $\overline{RS}$?

(1) 10
(2) 2
(3) $2\sqrt{7}$
(4) $7\sqrt{2}$

30 ¿Cuántas soluciones hay para el siguiente sistema de ecuaciones?

$$y = x^2 - 5x + 3$$
$$y = x - 6$$

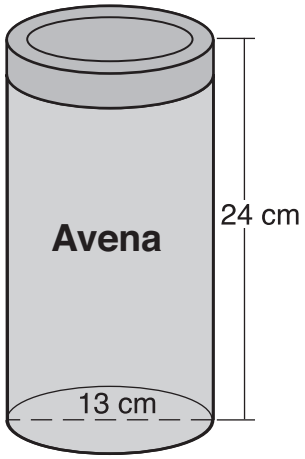
(1) 1
(2) 2
(3) 3
(4) 0

Parte II

Responda las 3 preguntas de esta parte. Cada respuesta correcta recibirá 2 créditos. Indique claramente los pasos necesarios, incluyendo apropiadamente las sustituciones de fórmulas, diagramas, gráficos, tablas, etc. Para todas las preguntas en esta parte, una respuesta numérica correcta sin demostrar el trabajo recibirá solamente 1 crédito. Todas las respuestas deben escribirse con bolígrafo de tinta permanente, con excepción de los gráficos y los dibujos, que deben hacerse con lápiz grafito. [6]

31 Resuelva algebraicamente la desigualdad $-5(x - 7) < 15$ para x.

32 La avena se envasa en un recipiente cilíndrico, como se muestra en el siguiente diagrama.



El diámetro del recipiente es de 13 centímetros y la altura es de 24 centímetros. Determine, en términos de π, el volumen del cilindro, en centímetros cúbicos.

33 La distancia que existe entre la Tierra y Marte es de 136,000,000 millas. Una nave espacial viaja a 31,000 millas por hora. Determine, al *día más cercano*, cuánto tardará la nave espacial en llegar a Marte.

Parte III

Responda las 3 preguntas de esta parte. Cada respuesta correcta recibirá 3 créditos. Indique claramente los pasos necesarios, incluyendo apropiadamente las sustituciones de fórmulas, diagramas, gráficos, tablas, etc. Para todas las preguntas en esta parte, una respuesta numérica correcta sin demostrar el trabajo recibirá solamente 1 crédito. Todas las respuestas deben escribirse con bolígrafo de tinta permanente, con excepción de los gráficos y los dibujos, que deben hacerse con lápiz grafito. [9]

34 A continuación se muestra el menú de la cafetería de la escuela secundaria.

Plato principal	Verdura	Postre	Bebida
hamburguesa vegetariana	elote	gelatina	leche
pizza	judías verdes	ensalada de frutas	jugo
sándwich de atún	zanahorias	yogur	botella de agua
salchicha		galleta	
bastoncitos de pollo		copa de helado	

Determine la cantidad posible de comidas con un plato principal, una verdura, un postre y una bebida que pueden seleccionarse del menú.

Determine cuántas de estas comidas incluirán bastoncitos de pollo.

Si un estudiante elige pizza, elote o zanahorias, un postre y una bebida del menú, determine la cantidad posible de comidas que pueden seleccionarse.

35 Un hombre parado sobre un suelo nivelado se encuentra a 1000 pies de distancia de la base de un edificio de 350 pies de altura. Calcule, al *grado más cercano*, la medida del ángulo de elevación hasta la parte superior del edificio desde el punto en el suelo donde está parado el hombre.

36 Exprese $\sqrt{25} - 2\sqrt{3} + \sqrt{27} + 2\sqrt{9}$ en la forma radical más simple.

Parte IV

Responda las 3 preguntas de esta parte. Cada respuesta correcta recibirá 4 créditos. Indique claramente los pasos necesarios, incluyendo apropiadamente las sustituciones de fórmulas, diagramas, gráficos, tablas, etc. Para todas las preguntas en esta parte, una respuesta numérica correcta sin demostrar el trabajo recibirá solamente 1 crédito. Todas las respuestas deben escribirse con bolígrafo de tinta permanente, con excepción de los gráficos y los dibujos, que deben hacerse con lápiz grafito. [12]

37 Resuelva algebraicamente: $\frac{2}{3x} + \frac{4}{x} = \frac{7}{x+1}$

[Solamente una solución algebraica puede recibir crédito completo].

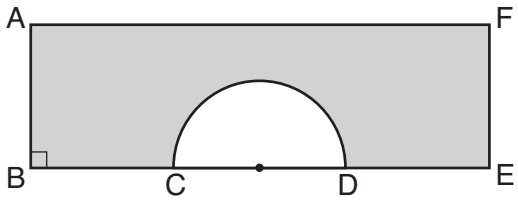
38 Un frasco contiene cinco canicas rojas y tres canicas verdes. Se saca una canica al azar y no se la reemplaza. Se saca una segunda canica del frasco.

Calcule la probabilidad de que la primera canica sea roja y la segunda canica sea verde.

Calcule la probabilidad de que ambas canicas sean rojas.

Calcule la probabilidad de que ambas canicas sean del mismo color.

39 En el siguiente diagrama del rectángulo *AFEB* y un semicírculo con un diámetro $\overline{CD}$, $AB = 5$ pulgadas, $AB = BC = DE = FE$ y $CD = 6$ pulgadas. Calcule el área de la región sombreada, a la *centésima más cercana de una pulgada cuadrada*.



Desprender por la línea perforada

Desprender por la línea perforada

Papel cuadriculado de borrador — Esta hoja *no* será calificada.

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Desprender por la línea perforada

Desprender por la línea perforada

Desprender por la línea perforada

Hoja de referencia

Razones trigonométricas	$\text{sen A} = \frac{opuesto}{hipotenusa}$ $\cos A = \frac{adyacente}{hipotenusa}$ $\tan A = \frac{opuesto}{adyacente}$

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

Volumen	cilindro	$V = \pi r^2 h$

Área de superficie	prisma rectangular	$SA = 2lw + 2hw + 2lh$
	cilindro	$SA = 2\pi r^2 + 2\pi rh$

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

Desprender por la línea perforada

INTEGRATED ALGEBRA SPANISH EDITION

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Impreso en papel reciclado

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Wednesday, June 12, 2013 — 1:15 to 4:15 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 Wednesday, June 12, 2013. Because scale scores 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) 1	(11) 2	(21) . . . . . 4 . . . . .
(2) 1	(12) 2	(22) . . . . . 1 . . . . .
(3) 3	(13) 3	(23) . . . . . 3 . . . . .
(4) 3	(14) 2	(24) . . . . . 3 . . . . .
(5) 4	(15) 1	(25) . . . . . 4 . . . . .
(6) 3	(16) 1	(26) . . . . . 2 . . . . .
(7) 1	(17) 2	(27) . . . . . 2 . . . . .
(8) 1	(18) 3	(28) . . . . . 3 . . . . .
(9) 3	(19) 4	(29) . . . . . 3 . . . . .
(10) 1	(20) 4	(30) . . . . . 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 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.

Beginning in January 2013, the Department is providing supplemental scoring guidance, the "Sample Response Set," for the Regents Examination in Integrated Algebra. This guidance is not required as part of the scorer training. It is at the school's discretion to incorporate it into the scorer training or to use it as supplemental information during scoring. While not reflective of all scenarios, the sample student responses selected for the Sample Response Set illustrate how less common student responses to open-ended questions may be scored. The Sample Response Set will be available on the Department's web site at http://www.p12.nysed.gov/assessment/scoring/home-hs.html.

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]** $x > 4$, and appropriate algebraic work is shown.

[1] Appropriate work is shown, but one computational error is made, but an appropriate answer is given.

or

[1] Appropriate work is shown, but one conceptual error is made, such as not reversing the inequality when dividing by a negative, but an appropriate answer is given.

or

[1] $x > 4$, but a method other than algebraic is used.

or

[1] $x > 4$, 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]** 1014π, and appropriate work is shown.

[1] Appropriate work is shown, but one computational error is made, but an appropriate answer is given.

or

[1] Appropriate work is shown, but one conceptual error is made, but an appropriate answer is given.

or

[1] A correct substitution into the formula for volume is made, such as $v = \pi\left(\frac{13}{2}\right)^2 \bullet 24$, but no further correct work is shown.

or

[1] Appropriate work is shown, but the answer is only written as a correct decimal.

or

[1] 1014π, 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]** 183, and appropriate work is shown.

[1] Appropriate work is shown, but one computational or rounding error is made, but an appropriate number of days is found.

or

[1] Appropriate work is shown, but one conceptual error is made, but an appropriate number of days is found.

or

[1] Appropriate work is shown to find 4387, the length of time, in hours, but no further correct work is shown.

or

[1] Appropriate work is shown to find 744,000, the miles traveled per day, but no further correct work is shown.

or

[1] 183, 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 3 credits. Unless otherwise specified, mathematically correct alternative solutions should be awarded appropriate credit.

(34) **[3]** 225, 45, and 30, and appropriate work is shown.

[2] Appropriate work is shown, but one computational error is made, but all appropriate answers are given.

or

[2] Appropriate work is shown to find two correct values.

or

[2] $5 \bullet 3 \bullet 5 \bullet 3$, $1 \bullet 3 \bullet 5 \bullet 3$, and $1 \bullet 2 \bullet 5 \bullet 3$ are written, but no further correct work is shown.

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

or

[1] Appropriate work is shown to find one correct answer.

or

[1] Appropriate work is shown, but one conceptual error is made, but all appropriate answers are given.

or

[1] 225, 45, and 30, 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.

(35) **[3]** 19, and appropriate work is shown.

[2] Appropriate work is shown, but one computational or rounding error is made, but an appropriate angle measure is found.

[1] Appropriate work is shown, but two or more computational or rounding errors are made, but an appropriate angle measure is found.

or

[1] Appropriate work is shown, but one conceptual error is made, such as using an incorrect trigonometric ratio, but an appropriate angle measure is found.

or

[1] $\tan x = \frac{350}{1000}$ is written, but no further correct work is shown.

or

[1] An incorrectly labeled diagram is drawn, but an appropriate angle measure is found.

or

[1] A correctly labeled diagram is drawn, but no further correct work is shown.

or

[1] 19, 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.

(36) **[3]** $11 + \sqrt{3}$ and appropriate work is shown.

[2] Appropriate work is shown, but one computational or simplification error is made, but an appropriate answer is found.

[1] Appropriate work is shown, but two or more computational or simplification errors are made, but an appropriate answer is found.

or

[1] Appropriate work is shown, but one conceptual error is made, but an appropriate answer is found.

or

[1] $5 - 2\sqrt{3} + 3\sqrt{3} + 6$, but no further correct work is shown.

or

[1] $11 + \sqrt{3}$ but no work is shown.

[0] The answer is expressed as a decimal.

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]** 2, and appropriate algebraic work is shown.

[3] Appropriate algebraic work is shown, but one computational error is made, but an appropriate answer is given.

[2] Appropriate algebraic work is shown, but one conceptual error is made, but an appropriate answer is given.

or

[2] 2, but a method other than algebraic method is used.

or

[2] Appropriate algebraic work is shown, but two or more computational errors are made, but an appropriate answer is given.

[1] Appropriate algebraic work is shown, but one conceptual error and one computational error are made, but an appropriate answer is given.

or

[1] 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.

(38) **[4]** $\frac{15}{56}$, $\frac{20}{56}$, and $\frac{26}{56}$ or equivalent answers, and appropriate work is shown.

[3] Appropriate work is shown, but one computational error is made, but appropriate probabilities are found.

or

[3] Appropriate work is shown to find $\frac{26}{56}$ or an equivalent answer and either $\frac{15}{56}$ or $\frac{20}{56}$ or an equivalent answer, but no further correct work is shown.

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

or

[2] Appropriate work is shown, but one conceptual error is made, but appropriate probabilities are found.

or

[2] Appropriate work is shown to find $\frac{15}{56}$ and $\frac{20}{56}$ or equivalent answers, but no further correct work is shown.

or

[2] Appropriate work is shown to find $\frac{26}{56}$ or an equivalent answer, but no further correct work is shown.

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

or

[1] Appropriate work is shown to find $\frac{15}{56}$ or $\frac{20}{56}$ or an equivalent answer, but no further correct work is shown.

or

[1] $\frac{15}{56}$, $\frac{20}{56}$, and $\frac{26}{56}$ or equivalent answers, 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]** 65.86, an appropriate work is shown.

[3] Appropriate work is shown, but one computational or rounding error is made, but an appropriate area is found.

or

[3] Appropriate work is shown, but the area is represented in terms of π.

or

[3] The area of the rectangle is found as 80 and the area of the semicircle is found as 4.5π or 14.137 or 14.14, but they are not subtracted.

[2] Appropriate work is shown, but two or more computational or rounding errors are made, but an appropriate area is found.

or

[2] Appropriate work is shown, but one conceptual error is made, such as using 6 as the radius or subtracting 9π, but an appropriate area is found.

[1] Appropriate work is shown, but one conceptual error and one computational or rounding error are made, but an appropriate area is found.

or

[1] Appropriate work is shown to find either the area of the rectangle or the area of the semicircle, but no further correct work is shown.

or

[1] 65.86, 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.

Map to Core Curriculum

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

Regents Examination in Integrated Algebra
June 2013
Chart for Converting Total Test Raw Scores to Final Examination Scores (Scale Scores)

The *Chart for Determining the Final Examination Score for the June 2013 Regents Examination in Integrated Algebra* will be posted on the Department's web site at: http://www.p12.nysed.gov/assessment/ on Wednesday, June 12, 2013. 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 – June 2013

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

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.