The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

MATHEMATICS A

Thursday, June 14, 2007 — 1:15 to 4:15 p.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.

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 minimum of a scientific calculator, a straightedge (ruler), and a compass 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]

1 Which letter has both point and line symmetry?

(1) **Z**   (3) **C**
(2) **T**   (4) **H**

2 What is the value of x in the equation $6(x - 2) = 36 - 10x$?

(1) −6   (3) 3
(2) 1.5   (4) 6

3 In his first three years coaching baseball at High Ridge High School, Coach Batty's team won 7 games the first year, 16 games the second year, and 4 games the third year. How many games does the team need to win in the fourth year so that the coach's average will be 10 wins per year?

(1) 13   (3) 3
(2) 10   (4) 9

4 What is the value of w in the equation $\frac{1}{2}w + 7 = 2w - 2$?

(1) 6   (3) $3\frac{1}{3}$
(2) 2   (4) 3.6

5 A six-sided number cube has faces with the numbers 1 through 6 marked on it. What is the probability that a number less than 3 will occur on one toss of the number cube?

(1) $\frac{1}{6}$ (3) $\frac{3}{6}$

(2) $\frac{2}{6}$ (4) $\frac{4}{6}$

6 The expression $\sqrt{54-b}$ is equivalent to a positive integer when b is equal to

(1) −10   (3) 16
(2) 54   (4) 4

7 The expression $\dfrac{-32x^8}{4x^2}$, $x \neq 0$, is equivalent to

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

8 What is the product of $(c + 8)$ and $(c - 5)$?

(1) $c^2 + 3c - 40$
(2) $c^2 - 3c - 40$
(3) $c^2 + 13c - 40$
(4) $c^2 - 40$

9 Andy is 6 feet tall. If 1 inch equals 2.54 centimeters, how tall is Andy, to the *nearest centimeter*?

(1) 15   (3) 183
(2) 30   (4) 213

10 If the length of a rectangular television screen is 20 inches and its height is 15 inches, what is the length of its diagonal, in inches?
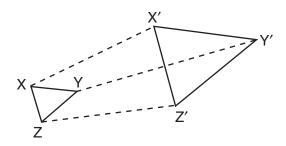
(1) 5   (3) 25
(2) 13.2   (4) 35

11 The accompanying diagram shows the transformation of ΔXYZ to $\Delta X'Y'Z'$.

This transformation is an example of a

(1) line reflection   (3) translation
(2) rotation   (4) dilation

12 When a fair coin was tossed ten times, it landed heads up the first seven times. What is the probability that on the eighth toss the coin will land with tails up?
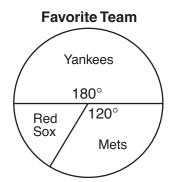
(1) $\frac{3}{10}$ (3) $\frac{7}{10}$

(2) $\frac{1}{2}$ (4) $\frac{3}{7}$

13 If the base of a triangle is represented by $x + 4$ and the height is represented by $2x$, which expression represents the area of the triangle?

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

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

14 Which property is illustrated by the equation $\frac{3}{2}x + 0 = \frac{3}{2}x$?

(1) commutative property of addition
(2) distributive property
(3) additive inverse property
(4) additive identity property

15 In a recent poll in Syracuse, New York, 3,000 people were asked to pick their favorite baseball team. The accompanying circle graph shows the results of that poll.

Favorite Team

How many of the people polled picked the Red Sox as their favorite team?
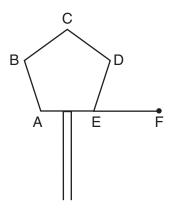
(1) 300   (3) 1,200
(2) 500   (4) 1,800

16 Which ordered pair satisfies the system of equations below?

$$3x - y = 8$$
$$x + y = 2$$

(1) (3,–1)   (3) (2.5,0.5)
(2) (2.5,–0.5)   (4) (5,–3)

17 What is the converse of the statement "If the Sun rises in the east, then it sets in the west"?

(1) If the Sun does not set in the west, then it does not rise in the east.
(2) If the Sun does not rise in the east, then it does not set in the west.
(3) If the Sun sets in the west, then it rises in the east.
(4) If the Sun rises in the west, then it sets in the east.

18 One piece of the birdhouse that Natalie is building is shaped like a regular pentagon, as shown in the accompanying diagram.

If side *AE* is extended to point *F*, what is the measure of exterior angle *DEF*?

(1) 36°   (3) 108°

(2) 72°   (4) 144°

19 If $c = 2m + d$, then m is equal to

(1) $\dfrac{c-d}{2}$ (3) $c - \dfrac{d}{2}$

(2) $\dfrac{c}{2} - d$ (4) $d - 2c$

20 According to the 2000 census, the population of New York State was approximately 18,900,000. How is this number expressed in scientific notation?

(1) 1890×10^4 (3) 1.89×10^7

(2) 18.9×10^6 (4) 189×10^5

21 The graph of the equation $2x + 6y = 4$ passes through point $(x,-2)$. What is the value of x?

(1) −4   (3) 16

(2) 8   (4) 4

22 Which statement describes the lines whose equations are $y = \frac{1}{3}x + 12$ and $6y = 2x + 6$?

(1) They are segments.
(2) They are perpendicular to each other.
(3) They intersect each other.
(4) They are parallel to each other.

23 What is the total number of different four-letter arrangements that can be formed from the letters in the word "VERTICAL," if each letter is used only once in an arrangement?

(1) 8   (3) 6,720
(2) 1,680   (4) 40,320

24 The expression $\sqrt{28} + \sqrt{63}$ is equivalent to

(1) $\sqrt{91}$ (3) $6\sqrt{7}$
(2) $5\sqrt{7}$ (4) $13\sqrt{7}$

25 The solution set of the equation $x^2 - 4x - 12 = 0$ is

(1) {−6,2}   (3) {−2,6}
(2) {−4,3}   (4) {−3,4}

26 If $a = 3$ and $b = -1$, what is the value of $ab - b^2$?

(1) −2   (3) −4
(2) 2   (4) 4

Use this space for
computations.

27 What is the sum of $\dfrac{3}{7n}$ and $\dfrac{7}{3n}$?

   (1) $\dfrac{1}{n}$ (3) $\dfrac{42}{21n}$

   (2) $\dfrac{10}{21n}$ (4) $\dfrac{58}{21n}$

28 Max goes through the cafeteria line and counts seven different meals and three different desserts that he can choose. Which expression can be used to determine how many different ways Max can choose a meal and a dessert?

   (1) $7 \bullet 3$ (3) $_7C_3$
   (2) $7! \bullet 3!$ (4) $_7P_3$

29 If the product of x and $\dfrac{1}{m}$ is -1, $m \neq 0$, then x is equivalent to

   (1) m (3) $1 - m$

   (2) $-m$ (4) $-\dfrac{1}{m}$

30 Given the statement: "A right angle measures 90°." How is this statement written as a biconditional?

   (1) If an angle is a right angle, then it measures 90°.
   (2) An angle is a right angle if, and only if, it measures 90°.
   (3) An angle measures 90° and it is a right angle.
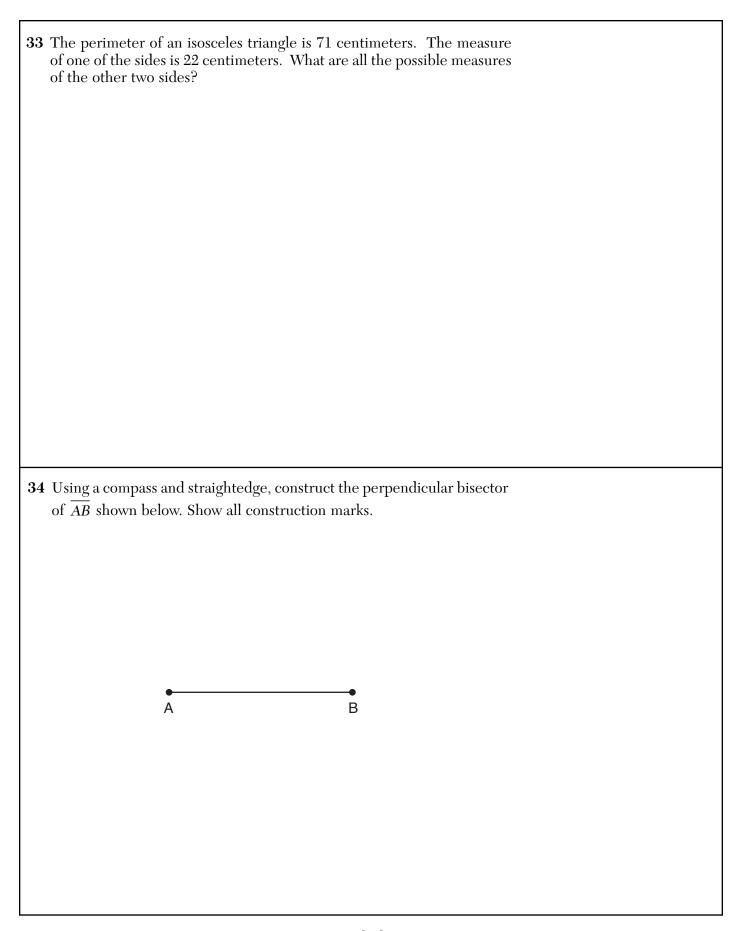   (4) If an angle does not measure 90°, then it is not a right angle.

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.   [10]

31 If a United States dollar is worth $1.41 in Canadian money, how much is $100 in Canadian money worth in United States money, to the *nearest cent*?

32 José surveyed 20 of his friends to find out what equipment they use to play recorded movies. He found that 12 of his friends have only DVD players, 5 have both DVD players and VCRs, and 2 have neither type of player. The rest of his friends have only VCRs. What is the total number of his friends that have VCRs?

33 The perimeter of an isosceles triangle is 71 centimeters. The measure of one of the sides is 22 centimeters. What are all the possible measures of the other two sides?

34 Using a compass and straightedge, construct the perpendicular bisector of $\overline{AB}$ shown below. Show all construction marks.

A ●————————————● B

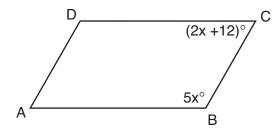**35** Ron and Francine are building a ramp for performing skateboard stunts, as shown in the accompanying diagram. The ramp is 7 feet long and 3 feet high. What is the measure of the angle, x, that the ramp makes with the ground, to the *nearest tenth of a degree*?

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. [6]

36 In the accompanying diagram of parallelogram $ABCD$, m$\angle B = 5x$ and m$\angle C = 2x + 12$. Find the number of degrees in $\angle D$.

37 Tracey has two empty cube-shaped containers with sides of 5 inches and 7 inches, as shown in the accompanying diagram. She fills the smaller container completely with water and then pours all the water from the smaller container into the larger container. How deep, to the *nearest tenth of an inch*, will the water be in the larger container?
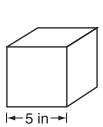

|←5 in→| |←——7 in——→|

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. [8]
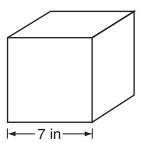
38 Angelo, Brandon, and Carl work in the same office. Angelo's age is 4 years more than twice Carl's age. Brandon is 5 years younger than Carl. The average of the three ages is 41. Find the age of *each* of the men.

39 Carson is a decorator. He often sketches his room designs on the coordinate plane. He has graphed a square table on his grid so that its corners are at the coordinates $A(2,6)$, $B(7,8)$, $C(9,3)$, and $D(4,1)$. To graph a second identical table, he reflects $ABCD$ over the y-axis.

On the accompanying set of coordinate axes, sketch and label $ABCD$ and its image $A'B'C'D'$, which show the locations of the two tables. Then find the number of square units in the area of $ABCD$.

MATHEMATICS A

Thursday, June 14, 2007 — 1:15 to 4:15 p.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.

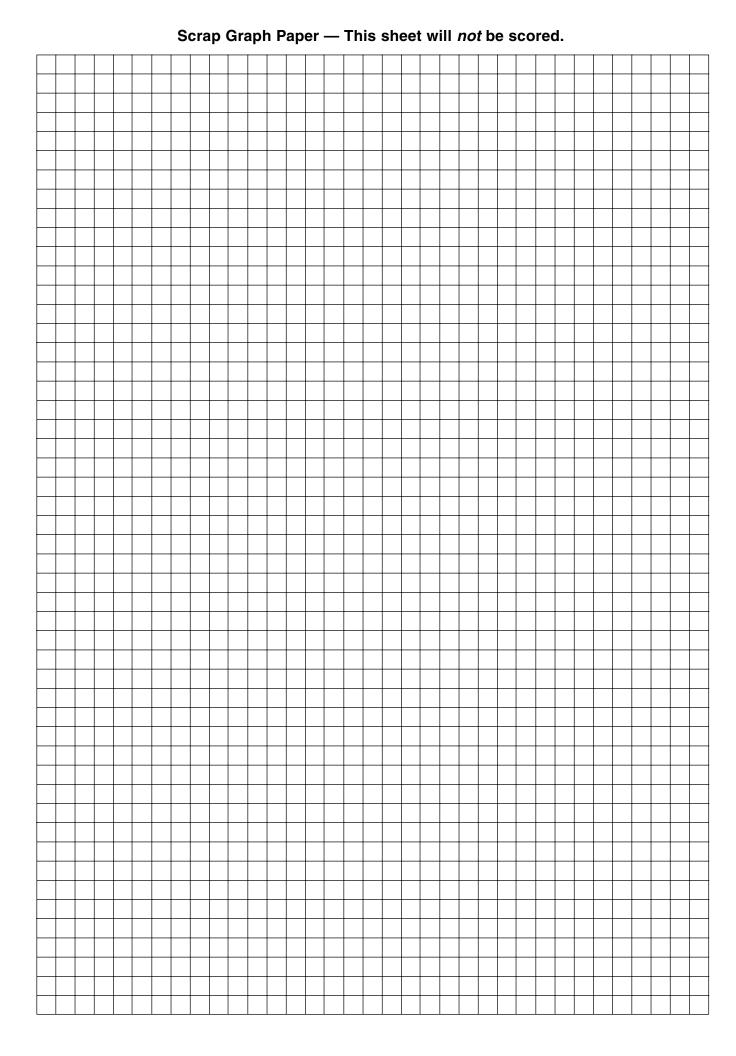|			
1	9	17	25 . . . .
2	10	18	26 . . . .
3	11	19	27 . . . .
4	12	20	28 . . . .
5	13	21	29 . . . .
6	14	22	30 . . . .
7	15	23	
8	16	24	

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

Tear Here

Tear Here

MATHEMATICS A

MATHEMATICS A			
Question	Maximum Credit	Credits Earned	Rater's/Scorer's Initials
Part I 1–30	60		
Part II 31	2		
32	2		
33	2		
34	2		
35	2		
Part III 36	3		
37	3		
Part IV 38	4		
39	4		
Maximum Total	84		

| | Total Raw Score | Checked by | Scaled Score (from conversion chart) |

Rater's/Scorer's Name
(minimum of three)

MATHEMATICS A

FOR TEACHERS ONLY

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

MATHEMATICS A

Thursday, June 14, 2007 — 1:15 to 4:15 p.m., only

SCORING KEY

Mechanics of Rating

The following procedures are to be followed for scoring student answer papers for the Mathematics A examination. More detailed information about scoring is provided in the publication *Information Booklet for Scoring the Regents Examinations in Mathematics A and Mathematics B*.

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

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

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

Raters should record the student's scores for all questions and the total raw score on the student's detachable answer sheet. Then the student's total raw score should be converted to a scaled score by using the conversion chart that will be posted on the Department's web site http://www.emsc.nysed.gov/osa/ on Thursday, June 14, 2007. 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.

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	(6) 1	(11) 4	(16) 2	(21) 2	(26) 3
(2) 3	(7) 4	(12) 2	(17) 3	(22) 4	(27) 4
(3) 1	(8) 1	(13) 4	(18) 2	(23) 2	(28) 1
(4) 1	(9) 3	(14) 4	(19) 1	(24) 2	(29) 2
(5) 2	(10) 3	(15) 2	(20) 3	(25) 3	(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 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 Examinations in Mathematics A and Mathematics B 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 A and Mathematics B*, 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]** 70.92, and appropriate work is shown, such as a proportion.

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

or

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

or

    [1] 70.92, 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]** 6, and appropriate work is shown, such as a Venn diagram.

    [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] 1, the number of friends with *only* a VCR player, is found, and appropriate work is shown.

or

    [1] 6, 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]** 22, 27 and 24.5, 24.5, *or* 22, 27, and 24.5, and appropriate work is shown, such as a labeled diagram.

[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] Appropriate work is shown, but only one of the two possible sets of numbers is found.

or

[1] 22, 27 and 24.5, 24.5, *or* 22, 27, and 24.5, 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.

(34)   **[2]** A correct construction is drawn, showing the arcs intersecting above and below $\overline{AB}$, and the perpendicular line is drawn.

[1] All of the construction arcs are drawn, but the perpendicular line is not drawn.

[0] A drawing that is not an appropriate construction 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)   **[2]** 25.4, and appropriate work is shown, such as solving the equation $\sin x = \frac{3}{7}$.

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

or

[1] Appropriate work is shown, but one conceptual error is made, such as using an incorrect trigonometric function.

or

[1] A correct trigonometric equation is written, but no further correct work is shown.

or

[1] 25.4, 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.

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.

(36)   **[3]** 120, and appropriate work is shown, such as solving the equation
$5x + 2x + 12 = 180$.

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

or

[2] The correct equation is solved for x, but no further correct work is shown.

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

or

[1] An incorrect equation of equal difficulty is solved appropriately, and an appropriate measure is found for $\angle D$.

or

[1] 120, 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.

(37) **[3]** 2.6, and appropriate work is shown, such as $(5 \bullet 5 \bullet 5) = (7 \bullet 7)h$.

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

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

or

[1] Appropriate work is shown, but one conceptual error is made, such as using an incorrect formula.

or

[1] The volume of both of the cubes is found correctly, but no further correct work is shown.

or

[1] 2.6, 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.

(38) **[4]** Angelo is 66, Brandon is 26, and Carl is 31, and appropriate work is shown, such as solving an equation or trial and error with at least three trials and appropriate checks.

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

or

[3] 66, 26, and 31, and appropriate work is shown, but the solutions are not labeled or are labeled incorrectly.

[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] The trial-and-error method is used to find a correct solution, 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 solution is found.

or

[2] Carl is 31, and appropriate work is shown, but the ages of the other men are not found.

or

[2] An incorrect equation of equal difficulty is solved appropriately.

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

or

[1] A correct equation is written, but no further correct work is shown.

or

[1] Angelo is 66, Brandon is 26, and Carl is 31, but no work or only one trial with an appropriate check is shown.

[0] Angelo is 66 *or* Brandon is 26 *or* Carl is 31, but no work is shown.

or

[0] 66, 26, and 31, 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.

(39) **[4]** *ABCD* and its image *A'B'C'D'* are graphed and labeled correctly and 29, and appropriate work is shown.

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

or

[3] *A'B'C'D'* is graphed and labeled correctly and 29, but *ABCD* is not graphed.

or

[3] *ABCD* is graphed incorrectly, but an appropriate image is graphed and labeled, and an appropriate area is found.

or

[3] *ABCD* and *A'B'C'D'* are graphed correctly and 29, but neither quadrilateral is labeled.

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

or

[2] Appropriate work is shown, but one conceptual error is made, such as an incorrect transformation, but the graphs are labeled, and an appropriate area is found.

or

[2] Both *ABCD* and *A'B'C'D'* are graphed and labeled correctly, but the area is not found.

or

[2] 29, and appropriate work is shown, such as using the distance formula and finding the area, but neither *ABCD* nor *A'B'C'D'* is graphed.

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

or

[1] Either *ABCD or A'B'C'D'* is graphed and labeled correctly, but no further correct work is shown.

or

[1] 29, but no work is shown and no graph is drawn.

[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
Mathematical Reasoning	17, 30, 32
Number and Numeration	6, 14, 29
Operations	1, 7, 8, 11, 20, 24, 26, 27
Modeling/Multiple Representation	18, 19, 22, 33, 34, 36, 39
Measurement	3, 9, 10, 13, 15, 31, 35, 37
Uncertainty	5, 12, 23, 28
Patterns/Functions	2, 4, 16, 21, 25, 38

Regents Examination in Mathematics A

June 2007

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

The *Chart for Determining the Final Examination Score for the June 2007 Regents Examination in Mathematics A* will be posted on the Department's web site <u>http://www.emsc.nysed.gov/osa/</u> on Thursday, June 14, 2007. Conversion charts provided for previous administrations of the Mathematics A 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 <u>www.emsc.nysed.gov/osa/exameval</u>.
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 Mathematics A
June 2007

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

Raw Score	Scaled Score		Raw Score	Scaled Score		Raw Score	Scaled Score
84	100		55	80		27	57
83	99		54	79		26	56
82	98		53	78		25	54
81	98		52	78		24	53
80	97		51	77		23	52
79	97		50	77		22	50
78	96		49	76		21	49
77	95		48	75		20	48
76	94		47	75		19	46
75	94		46	74		18	45
74	93		45	73		17	43
73	92		44	72		16	41
72	91		43	72		15	40
71	91		42	71		14	38
70	90		41	70		13	36
69	89		40	69		12	34
68	88		39	69		11	32
67	87		38	68		10	30
66	87		37	67		9	28
65	86		36	66		8	26
64	86		35	65		7	23
63	85		34	64		6	21
62	84		33	63		5	18
61	83		32	62		4	15
60	83		31	61		3	12
59	82		30	60		2	8
58	81		29	59		1	4
57	81		28	58		0	0
56	80						

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 scaled score that corresponds to that raw score. The scaled score is the student's final examination score. Enter this score in the space labeled "Scaled Score" on the student's answer sheet.

All student answer papers that receive a scaled score of 60 through 64 **must** be scored a second time. 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 scaled 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 Mathematics A Examination.