Thursday, January 25, 2007 - 1:15 to 4:15 p.m., only

Print Your Name: $\square$

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.

## 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 image represents a line reflection?
Use this space for computations.
(1) P Q
(3)
$P_{P}$
(2) $P_{0}$
(4)


2 The accompanying diagram shows two parallel roads, Hope Street and Grand Street, crossed by a transversal road, Broadway.


If $\mathrm{m} \angle 1=110$, what is the measure of $\angle 7$ ?
(1) $40^{\circ}$
(3) $110^{\circ}$
(2) $70^{\circ}$
(4) $180^{\circ}$

3 Which point on the accompanying number line best represents the

## Use this space for computations.

 position of $\sqrt{5}$ ?
(1) $A$
(3) $C$
(2) $B$
(4) $D$

4 The base of an isosceles triangle is 5 and its perimeter is 11 . The base of a similar isosceles triangle is 10 . What is the perimeter of the larger triangle?
(1) 15
(3) 22
(2) 21
(4) 110

5 What is the value of $n$ in the equation $3 n-8=32-n$ ?
(1) -10
(3) 6
(2) -6
(4) 10

6 The statement " $x \geq 4$ and $2 x-4<6$ " is true when $x$ is equal to
(1) 1
(3) 5
(2) 10
(4) 4

7 The expression $\left(2 x^{2}+6 x+5\right)-\left(6 x^{2}+3 x+5\right)$ is equivalent to
(1) $-4 x^{2}+3 x$
(3) $-4 x^{2}-3 x+10$
(2) $4 x^{2}-3 x$
(4) $4 x^{2}+3 x-10$

8 Which equation represents the direct variation relationship of the

## Use this space for computations.

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

9 Seth tossed a fair coin five times and got five heads. The probability that the next toss will be a tail is
(1) 0
(3) $\frac{5}{6}$
(2) $\frac{1}{6}$
(4) $\frac{1}{2}$

10 The formula for potential energy is $P=m g h$, where $P$ is potential energy, $m$ is mass, $g$ is gravity, and $h$ is height. Which expression can be used to represent $g$ ?
(1) $P-m-h$
(3) $\frac{P}{m}-h$
(2) $P-m h$
(4) $\frac{P}{m h}$

11 A planned building was going to be 100 feet long, 75 feet deep, and 30 feet high. The owner decides to increase the volume of the building by $10 \%$ without changing the dimensions of the depth and the height. What will be the new length of this building?
(1) 106 ft
(3) 110 ft
(2) 108 ft
(4) 112 ft

12 Which expression represents the product of two consecutive odd

## Use this space for computations.

 integers, where $n$ is an odd integer?(1) $n(n+1)$
(3) $n(n+3)$
(2) $n(n+2)$
(4) $2 n+1$

13 Which value is equivalent to ${ }_{3} P_{3}$ ?
(1) 1
(3) 3 !
(2) 9
(4) 27

14 The graph of the equation $x^{2}+y^{2}=r^{2}$ forms
(1) a circle
(3) a straight line
(2) a parabola
(4) two intersecting lines

15 What is the inverse of the statement "If Bob gets hurt, then the team loses the game"?
(1) If the team loses the game, then Bob gets hurt.
(2) Bob gets hurt if the team loses the game.
(3) If the team does not lose the game, then Bob does not get hurt.
(4) If Bob does not get hurt, then the team does not lose the game.

16 Which expression is undefined when $w=3$ ?
(1) $\frac{w-3}{w+1}$
(3) $\frac{w+1}{w^{2}-3 w}$
(2) $\frac{w^{2}+2 w}{5 w}$
(4) $\frac{3 w}{3 w^{2}}$

# Use this space for computations. 

17 A circular garden has a diameter of 12 feet. How many bags of topsoil must Linda buy to cover the garden if one bag covers an area of 3 square feet?
(1) 13
(3) 40
(2) 38
(4) 151

18 The midpoint of $\overline{A B}$ is $(-1,5)$ and the coordinates of point $A$ are $(-3,2)$. What are the coordinates of point $B$ ?
(1) $(1,8)$
(3) $(0,7)$
(2) $(1,10)$
(4) $(-5,8)$

19 What is the value of $x$ in the equation $\frac{x}{2}+\frac{x}{6}=2$ ?
(1) 12
(3) 3
(2) 8
(4) $\frac{1}{4}$

20 If $M$ and $A$ represent integers, $M+A=A+M$ is an example of which property?
(1) commutative
(3) distributive
(2) associative
(4) closure

21 A set of five quadrilaterals consists of a square, a rhombus, a rectangle, an isosceles trapezoid, and a parallelogram. Lu selects one of these figures at random. What is the probability that both pairs of the figure's opposite sides are parallel?
(1) 1
(3) $\frac{3}{4}$
(2) $\frac{4}{5}$
(4) $\frac{2}{5}$

22 If the measures of the angles of a triangle are represented by $2 x$,

## Use this space for computations.

 $3 x-15$, and $7 x+15$, the triangle is(1) an isosceles triangle
(3) an acute triangle
(2) a right triangle
(4) an equiangular triangle

23 What is the value of $3^{0}+3^{-2}$ ?
(1) 0
(3) $1 \frac{1}{9}$
(2) $\frac{1}{9}$
(4) 6

24 The expression $\left(50 x^{3}-60 x^{2}+10 x\right) \div 10 x$ is equivalent to
(1) $5 x^{2}-6 x+1$
(3) $5 x^{2}-60 x^{2}+10 x$
(2) $5 x^{3}-6 x^{2}+x$
(4) $5 x^{2}-6 x$

25 The image of point $A$ after a dilation of 3 is $(6,15)$. What was the original location of point $A$ ?
(1) $(2,5)$
(3) $(9,18)$
(2) $(3,12)$
(4) $(18,45)$

26 Mario paid $\$ 44.25$ in taxi fare from the hotel to the airport. The cab charged $\$ 2.25$ for the first mile plus $\$ 3.50$ for each additional mile. How many miles was it from the hotel to the airport?
(1) 10
(3) 12
(2) 11
(4) 13

27 What is the solution set of the equation $x^{2}-5 x=0$ ?

## Use this space for computations.

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

28 The expression $\left(6 x^{3} y^{6}\right)^{2}$ is equivalent to
(1) $36 x^{6} y^{12}$
(3) $12 x^{6} y^{12}$
(2) $36 x^{5} y^{8}$
(4) $6 x^{6} y^{12}$

29 If the Math Olympiad Club consists of eighteen students, how many different teams of four students can be formed for competitions?
(1) 66
(3) 3,060
(2) 72
(4) 73,440

30 The multiplicative inverse of $-\frac{1}{3}$ is
(1) $\frac{1}{3}$
(3) 3
(2) $-\frac{1}{3}$
(4) -3

## 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 Kimberly has three pair of pants: one black, one red, and one tan. She also has four shirts: one pink, one white, one yellow, and one green.

Draw a tree diagram or list the sample space showing all possible outfits that she could wear, if an outfit consists of one pair of pants and one shirt.

How many different outfits can Kimberly wear?

32 A 14-gram serving of mayonnaise contains 11 grams of fat. What percent of the mayonnaise, to the nearest tenth of a percent, is fat?

33 Every month, Omar buys pizzas to serve at a party for his friends. In May, he bought three more than twice the number of pizzas he bought in April. If Omar bought 15 pizzas in May, how many pizzas did he buy in April?

34 The formula $C=\frac{5}{9}(F-32)$ is used to convert Fahrenheit temperature, $F$, to Celsius temperature, $C$. What temperature, in degrees Fahrenheit, is equivalent to a temperature of $10^{\circ}$ Celsius?

35 From a point on level ground 25 feet from the base of a tower, the angle of elevation to the top of the tower is $78^{\circ}$, as shown in the accompanying diagram. Find the height of the tower, to the nearest tenth of a foot.


## 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 The perimeter of a square is 56 . Express the length of a diagonal of the square in simplest radical form.

37 The Eye Surgery Institute just purchased a new laser machine for $\$ 500,000$ to use during eye surgery. The Institute must pay the inventor $\$ 550$ each time the machine is used. If the Institute charges $\$ 2,000$ for each laser surgery, what is the minimum number of surgeries that must be performed in order for the Institute to make a profit?

## 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 Graph the following systems of inequalities on the accompanying set of axes and label the solution set $S$ :

$$
\begin{aligned}
& y>x-4 \\
& y+x \geq 2
\end{aligned}
$$

[Only a graphic solution can receive full credit.]


39 The accompanying table shows the weights, in pounds, for the students in an algebra class.
Using the data, complete the cumulative frequency table below and construct a cumulative frequency histogram on the grid on the next page.

| Interval | Frequency | Cumulative <br> Frequency |
| :---: | :---: | :---: |
| $91-100$ | 6 |  |
| $101-110$ | 3 |  |
| $111-120$ | 0 |  |
| $121-130$ | 3 |  |
| $131-140$ | 0 |  |
| $141-150$ | 2 |  |
| $151-160$ | 2 |  |

Question 39 continued


|  |  |  | T | T |  |  |  |  | , |  | $\square$ |  |  |  |  |  |  |  |  |
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# MATHEMATICS A 

Thursday, January 25, 2007 - 1:15 to 4:15 p.m., only

## ANSWER SHEET

| Student |  |  | Grade |
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| Teacher |  |  |  |
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| 1 | 9 | 17 |  |
| 2 | 10 | 18 |  |
| 3 | 11 | 19 |  |
| 4 | 12 | 20 |  |
| 5 | 13 | 21 |  |
| 6 | 14 | 22 |  |
| 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.

## MATHEMATICS A



# FOR TEACHERS ONLY 

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

## MATHEMATICS A

Thursday, January 25,2007 - 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 checkmarks 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, January 25, 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) 1
(6) 4
(11) 3
(16) 3
(21) 2
(26) 4
(2) 2
(7) 1
(12) 2
(17) 2
(22) 1
(27) 2
(3) 3
(8) 2
(13) 3
(18) 1
(23) 3
(28) 1
(4) 3
(9) 4
(14) 1
(19) 3
(24) 1
(29) 3
(5) 4
(10) 4
(15) 4
(20) 1
(25) 1
(30) 4

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).

## Mathematics A - continued

## 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] 12, and a correct tree diagram or a correct sample space is shown.
[1] An incomplete tree diagram or sample space is shown with at least 8 possible combinations shown, and an appropriate number of outfits is found.
or
[1] A correct tree diagram or sample space is shown, but the number of possible outfits is missing or is incorrect.
or
[1] 12 , but $3 \times 4$ is used to find the number of outfits.
[0] 12, 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.
[2] $78.6 \%$, and appropriate work is shown.
[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] 78.6\%, but no work is shown.
[0] A zero response is completely incorrect, irrelevant, incoherent or is a correct response that was obtained by an obviously incorrect procedure.
[2] 6 , and appropriate work is shown, such as solving the equation $2 x+3=15$ or trial and error with at least three trials and appropriate checks.
[1] Appropriate work is shown, but one computational error is made.
or
[1] Appropriate work is shown, but one conceptual error is made.
or
[1] A correct equation is written, but no further correct work is shown.

## or

[1] The trial-and-error method is attempted and at least six systematic trials and appropriate checks are shown, but no solution is found.
or
[1] 6, but no work or fewer than three trials and appropriate checks are shown.
[0] A zero response is completely incorrect, irrelevant or incoherent or is a correct response that was obtained by an obviously incorrect procedure.
[2] 50, and appropriate work is shown, such as solving the equation $10=\frac{5}{9}(F-32)$.
[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] Correct substitution is made into the equation, but no further correct work is shown.
or
[1] 50, 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.

## Mathematics A - continued

(35) [2] 117.6, and appropriate work is shown, such as $\tan 78^{\circ}=\frac{x}{25}$.
[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, but an appropriate solution is found.
or
[1] A correct trigonometric equation is written, but no further correct work is shown.
or
[1] 117.6, 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.

## Mathematics A - continued

## 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.
[3] $14 \sqrt{2}$, and appropriate work is shown, such as using the Pythagorean theorem or drawing a correctly labeled diagram that shows the isosceles right triangle.
[2] Appropriate work is shown, but one computational error is made.
or
[2] Appropriate work is shown, but the answer is expressed as a decimal or the radical is not simplified.
[1] Appropriate work is shown, but two or more computational errors are made.
or
[1] Appropriate work is shown, but one computational error is made, and the answer is not expressed as a radical in simplest form.
or
[1] Appropriate work is shown, but one conceptual error is made.
or
[1] 14, the side of the square is found correctly, but no further correct work is shown.
or
[1] $14 \sqrt{2}$, 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.

> Mathematics A - continued
(37)
[3] 345, and appropriate work is shown, such as solving the inequality $1450 x>500,000$, solving an equation, or trial and error with at least three trials and appropriate checks.
[2] Appropriate work is shown, but one computational or rounding 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.
[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.
or
[1] A correct inequality or equation is written, but no further correct work is shown.
or
[1] The trial-and-error method is attempted and at least six systematic trials and appropriate checks are shown, but no solution is found.
or
[1] 345 , but no work or only one trial with an appropriate check 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.

## Mathematics A - continued

## 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.
[4] Both inequalities are graphed correctly and at least one is labeled, and the solution set is labeled $S$.
[3] Appropriate work is shown, but one graphing error is made, such as drawing a solid line for $y>x-4$ or shading incorrectly, but the solution set is labeled $S$.
or
[3] Both inequalities are graphed correctly and at least one is labeled, but the solution set is not labeled or is labeled incorrectly.
or
[3] Both inequalities are graphed correctly, the solution set is labeled, but neither inequality is labeled.
[2] Appropriate work is shown, but two or more graphing errors are made, but an appropriate solution set is labeled.
or
[2] Appropriate work is shown, but one conceptual error is made, such as graphing the lines $y=-x+2$ and $y=x-4$ and labeling the point of intersection $S$.
[1] One inequality is graphed and shaded correctly, but no further correct work is shown.
or
[1] The lines $y=-x+2$ and $y=x-4$ are graphed correctly, but no solution is indicated.
[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] The table is completed correctly, and an appropriate cumulative frequency histogram is drawn and labeled.
[3] The table is completed correctly, but one error is made in drawing the cumulative frequency histogram or one or more labeling errors are made.
or
[3] The table is not completed correctly, but an appropriate cumulative frequency histogram is drawn, based on the table.
[2] One error is made in completing the table, and one graphing error is made in drawing the cumulative frequency histogram.
or
[2] The table is completed correctly, but one conceptual error is made, such as drawing a frequency histogram or a cumulative frequency bar graph.
[1] The table is completed correctly, but no histogram 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 | 6,15 |
| Number and Numeration | $3,16,20,30$ |
| Operations | $1,7,23,24,28,34,36$ |
| Modeling/Multiple Representation | $2,10,12,22,25,31,37$ |
| Measurement | $4,8,11,17,18,32,35,39$ |
| Uncertainty | $9,13,21,29$ |
| Patterns/Functions | $5,14,19,26,27,33,38$ |

## Regents Examination in Mathematics A

January 2007
Chart for Converting Total Test Raw Scores to Final Examination Scores (Scaled Scores)

The Chart for Determining the Final Examination Score for the January 2007 Regents Examination in Mathematics $A$ will be posted on the Department's web site http://www.emsc.nysed.gov/osa// on Thursday, January 25, 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 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 Mathematics A January 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 | 81 | 27 | 56 |
| 83 | 99 | 54 | 80 | 26 | 55 |
| 82 | 99 | 53 | 79 | 25 | 54 |
| 81 | 98 | 52 | 79 | 24 | 52 |
| 80 | 98 | 51 | 78 | 23 | 51 |
| 79 | 97 | 50 | 78 | 22 | 49 |
| 78 | 96 | 49 | 77 | 21 | 48 |
| 77 | 96 | 48 | 76 | 20 | 46 |
| 76 | 95 | 47 | 75 | 19 | 45 |
| 75 | 95 | 46 | 75 | 18 | 43 |
| 74 | 94 | 45 | 74 | 17 | 42 |
| 73 | 93 | 44 | 73 | 16 | 40 |
| 72 | 93 | 43 | 72 | 15 | 38 |
| 71 | 92 | 42 | 72 | 14 | 36 |
| 70 | 91 | 41 | 71 | 13 | 35 |
| 69 | 90 | 40 | 70 | 12 | 33 |
| 68 | 90 | 39 | 69 | 11 | 31 |
| 67 | 89 | 38 | 68 | 10 | 29 |
| 66 | 88 | 37 | 67 | 9 | 26 |
| 65 | 87 | 36 | 66 | 8 | 24 |
| 64 | 87 | 35 | 65 | 7 | 22 |
| 63 | 86 | 34 | 64 | 6 | 19 |
| 62 | 86 | 33 | 63 | 5 | 17 |
| 61 | 85 | 32 | 62 | 4 | 14 |
| 60 | 84 | 31 | 61 | 3 | 11 |
| 59 | 83 | 30 | 60 | 2 | 8 |
| 58 | 83 | 29 | 59 | 1 | 4 |
| 57 | 82 | 28 | 57 | 0 | 0 |
| 56 | 81 |  |  |  |  |

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.

