The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

MATHEMATICS A

Tuesday, January 25, 2000 — 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. 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 35 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 for the questions in Parts II, III, and IV directly in this booklet. Clearly indicate the necessary steps you take, 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 paper, 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 paper cannot be accepted if you fail to sign this declaration.

Notice...

A scientific calculator, a straightedge (ruler), and a compass must be available for your use while taking this examination.

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. Record your answers in the spaces provided on the separate answer sheet. [40]

Use this space for computations.

1 The expression $\sqrt{93}$ is a number between

(1) 3 and 9
(2) 8 and 9
(3) 9 and 10
(4) 46 and 47

2 Which number has the greatest value?

(1) $1\frac{2}{3}$
(2) $\sqrt{2}$
(3) $\frac{\pi}{2}$
(4) 1.5

3 Mary says, "The number I am thinking of is divisible by 2 or it is divisible by 3." Mary's statement is false if the number she is thinking of is

(1) 6
(2) 8
(3) 11
(4) 15

4 Which expression is a factor of $x^2 + 2x - 15$?

(1) $(x - 3)$
(2) $(x + 3)$
(3) $(x + 15)$
(4) $(x - 5)$

5 What was the median high temperature in Middletown during the 7-day period shown in the table below?

Daily High Temperature in Middletown	
Day	**Temperature (°F)**
Sunday	68
Monday	73
Tuesday	73
Wednesday	75
Thursday	69
Friday	67
Saturday	63

(1) 69
(2) 70
(3) 73
(4) 75

Use this space for computations.

6 If the number represented by $n - 3$ is an odd integer, which expression represents the next greater odd integer?

(1) $n - 5$
(2) $n - 2$
(3) $n - 1$
(4) $n + 1$

7 When the point (2,–5) is reflected in the x-axis, what are the coordinates of its image?

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

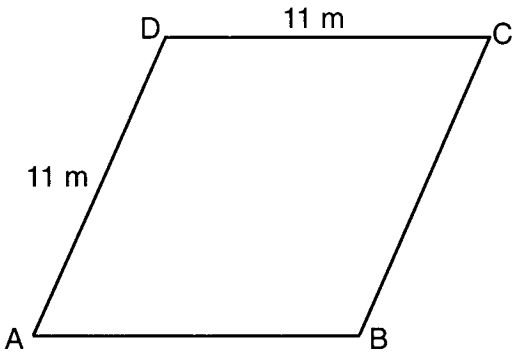
8 The expression $(x^2z^3)(xy^2z)$ is equivalent to

(1) $x^2y^2z^3$
(2) $x^3y^2z^4$
(3) $x^3y^3z^4$
(4) $x^4y^2z^5$

9 Twenty-five percent of 88 is the same as what percent of 22?

(1) $12\frac{1}{2}\%$
(2) 40%
(3) 50%
(4) 100%

10 A plot of land is in the shape of rhombus $ABCD$ as shown below.



(Not drawn to scale)

Which can *not* be the length of diagonal AC?

(1) 24 m
(2) 18 m
(3) 11 m
(4) 4 m

11 If $9x + 2a = 3a - 4x$, then x equals

(1) a
(2) $-a$
(3) $\frac{5a}{12}$
(4) $\frac{a}{13}$

Use this space for computations.

12 If the circumference of a circle is 10π inches, what is the area, in square inches, of the circle?

(1) 10π
(2) 25π
(3) 50π
(4) 100π

13 How many different 4-letter arrangements can be formed using the letters of the word "JUMP," if each letter is used only once?

(1) 24
(2) 16
(3) 12
(4) 4

14 Sterling silver is made of an alloy of silver and copper in the ratio of 37:3. If the mass of a sterling silver ingot is 600 grams, how much silver does it contain?

(1) 48.65 g
(2) 200 g
(3) 450 g
(4) 555 g

15 If $t = -3$, then $3t^2 + 5t + 6$ equals

(1) -36
(2) -6
(3) 6
(4) 18

16 The expression $\frac{y}{x} - \frac{1}{2}$ is equivalent to

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

17 The party registration of the voters in Jonesville is shown in the table below.

Registered Voters in Jonesville	
Party Registration	**Number of Voters Registered**
Democrat	6,000
Republican	5,300
Independent	3,700

If one of the registered Jonesville voters is selected at random, what is the probability that the person selected is *not* a Democrat?

(1) 0.333
(2) 0.400
(3) 0.600
(4) 0.667

18 If the number of molecules in 1 mole of a substance is 6.02×10^{23}, then the number of molecules in 100 moles is

(1) 6.02×10^{21} (3) 6.02×10^{24}
(2) 6.02×10^{22} (4) 6.02×10^{25}

Use this space for computations.

19 When $3a^2 - 2a + 5$ is subtracted from $a^2 + a - 1$, the result is

(1) $2a^2 - 3a + 6$ (3) $2a^2 - 3a - 6$
(2) $-2a^2 + 3a - 6$ (4) $-2a^2 + 3a + 6$

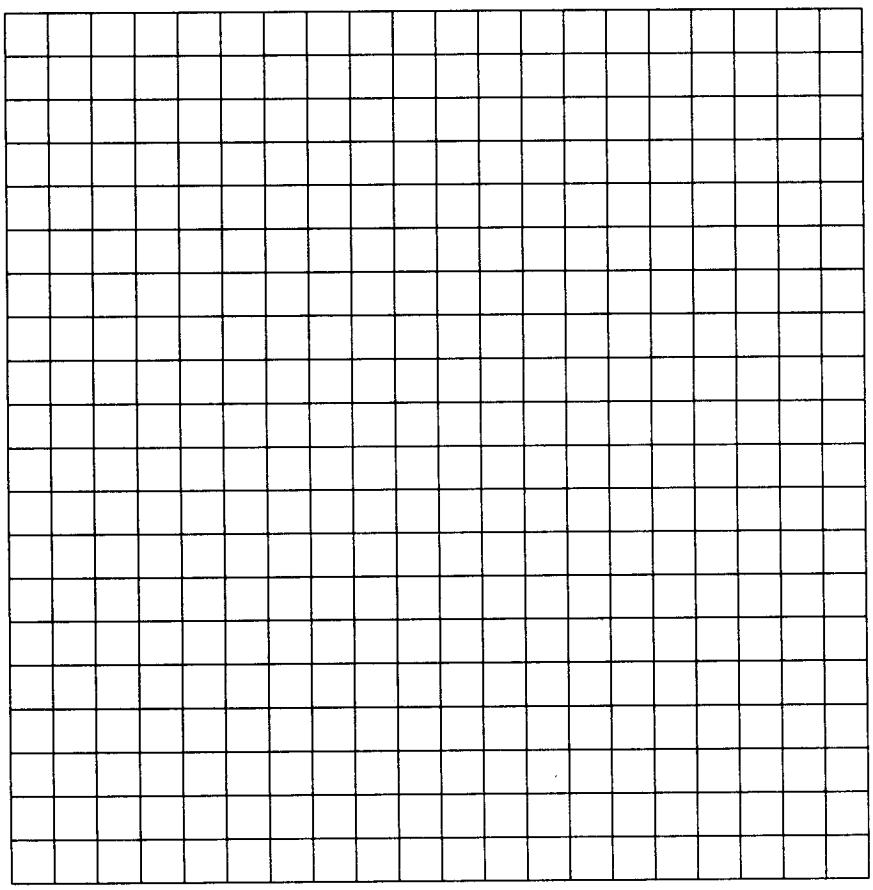
20 The distance between parallel lines ℓ and m is 12 units. Point A is on line ℓ. How many points are equidistant from lines ℓ and m and 8 units from point A?

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

Part II

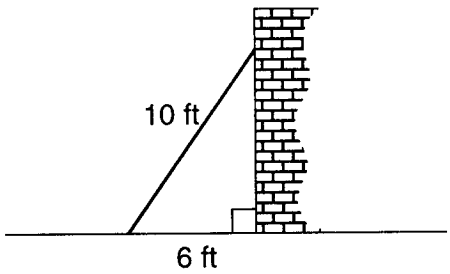
Answer all questions in this part. Each correct answer will receive 2 credits. Clearly indicate the necessary steps, including appropriate formula substitutions, diagrams, graphs, charts, etc. For all questions in this part, a correct numerical answer with no work shown will receive only 1 credit. [10]

21 The midpoint M of line segment AB has coordinates $(-3,4)$. If point A is the origin, $(0,0)$, what are the coordinates of point B? [The use of the accompanying grid is optional.]

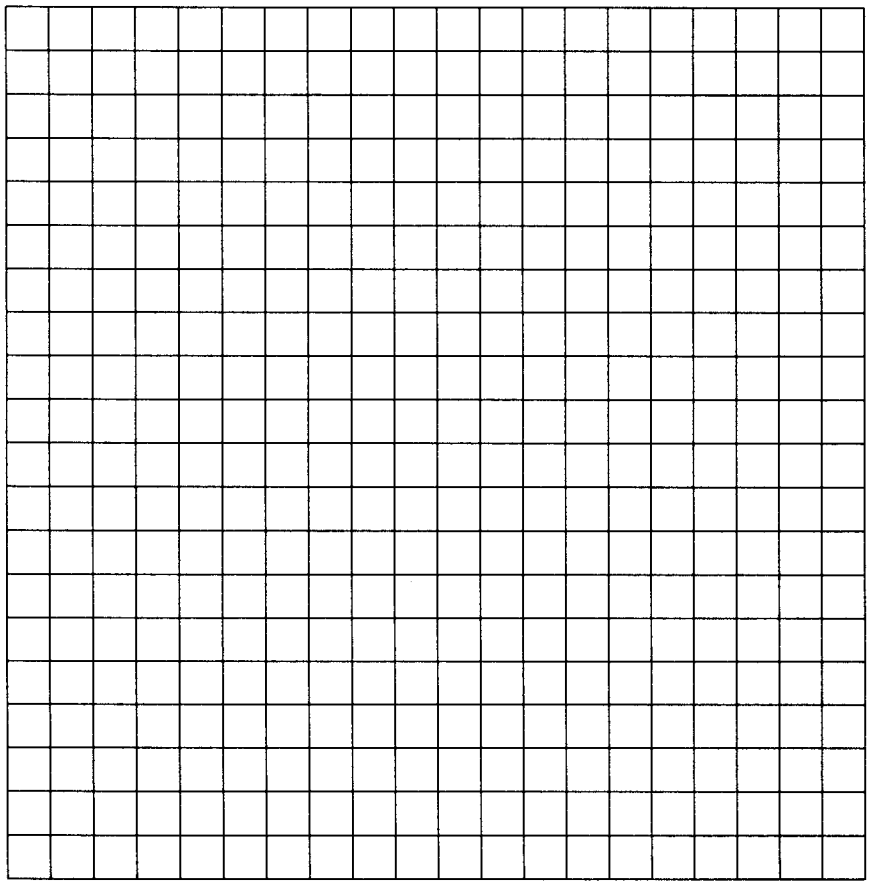


22 Mary and Amy had a total of 20 yards of material from which to make costumes. Mary used three times more material to make her costume than Amy used, and 2 yards of material was not used. How many yards of material did Amy use for her costume?

23 A wall is supported by a brace 10 feet long, as shown in the diagram below. If one end of the brace is placed 6 feet from the base of the wall, how many feet up the wall does the brace reach?



24 A straight line with slope 5 contains the points (1,2) and (3,K). Find the value of K. [The use of the accompanying grid is optional.]



25 Al says, "If *ABCD* is a parallelogram, then *ABCD* is a rectangle." Sketch a quadrilateral *ABCD* that shows that Al's statement is *not* always true. Your sketch must show the length of each side and the measure of each angle for the quadrilateral you draw.

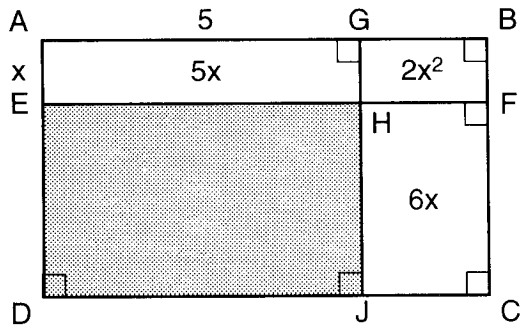
Part III

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. [15]

26 Judy needs a mean (average) score of 86 on four tests to earn a midterm grade of B. If the mean of her scores for the first three tests was 83, what is the *lowest* score on a 100-point scale that she can receive on the fourth test to have a midterm grade of B?

27 A truck traveling at a constant rate of 45 miles per hour leaves Albany. One hour later a car traveling at a constant rate of 60 miles per hour also leaves Albany traveling in the same direction on the same highway. How long will it take for the car to catch up to the truck, if both vehicles continue in the same direction on the highway?

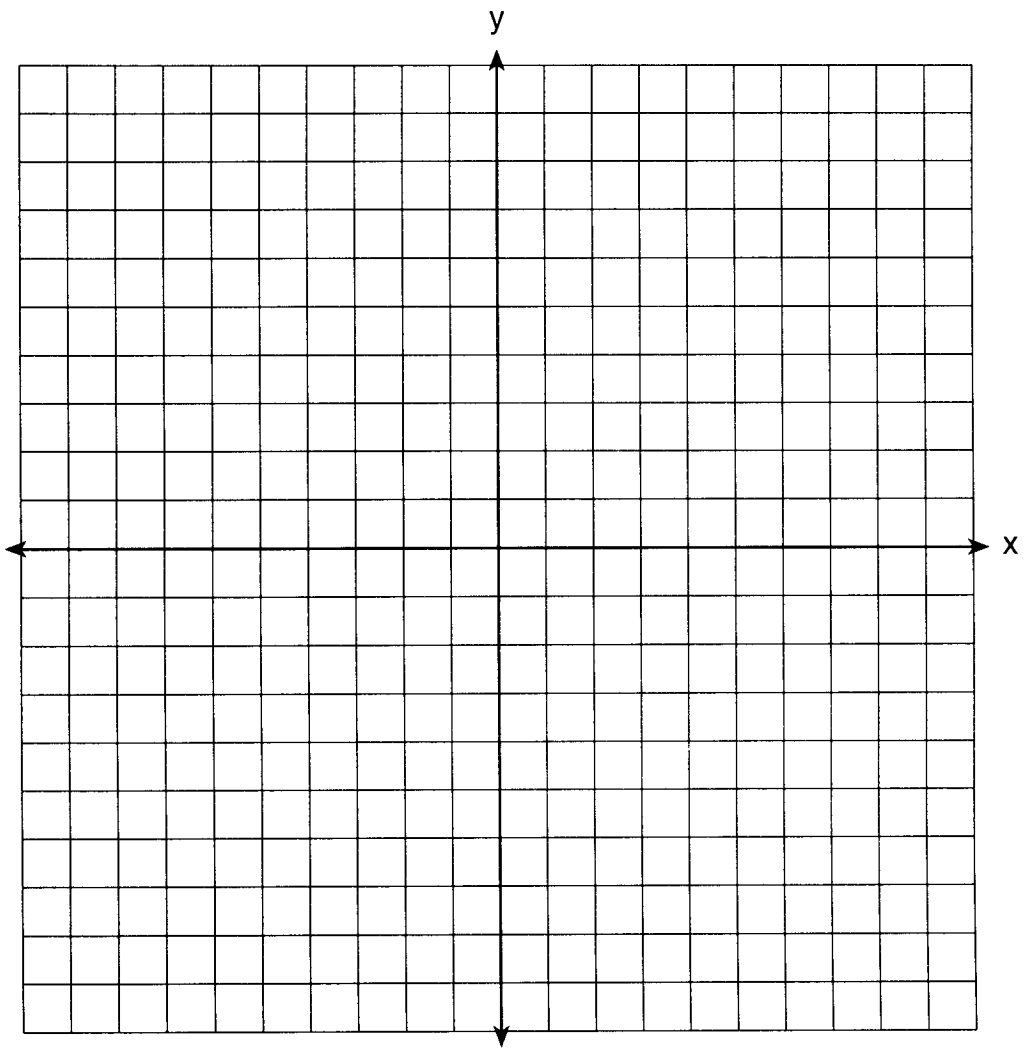
28 In the figure below, the large rectangle, $ABCD$, is divided into four smaller rectangles. The area of rectangle $AEHG = 5x$, the area of rectangle $GHFB = 2x^2$, the area of rectangle $HJCF = 6x$, segment $AG = 5$, and segment $AE = x$.



a Find the area of the shaded region.

b Write an expression for the area of rectangle $ABCD$ in terms of x.

29 *a* On the set of axes provided below, sketch a circle with a radius of 3 and a center at (2,1) and also sketch the graph of the line $2x + y = 8$.



b What is the total number of points of intersection of the two graphs?

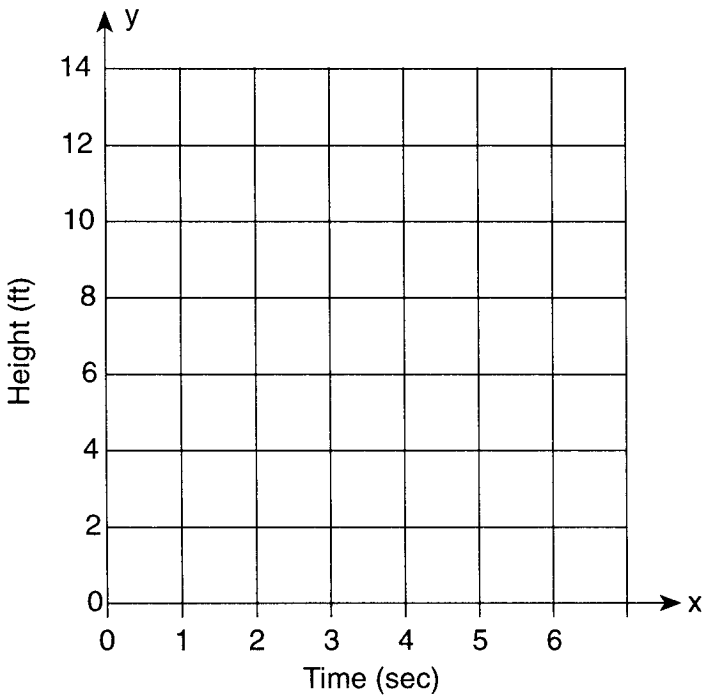
30 The volume of a rectangular pool is 1,080 cubic meters. Its length, width, and depth are in the ratio 10:4:1. Find the number of meters in each of the three dimensions of the pool.

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. [20]

31 Amy tossed a ball in the air in such a way that the path of the ball was modeled by the equation $y = -x^2 + 6x$. In the equation, y represents the height of the ball in feet and x is the time in seconds.

a Graph $y = -x^2 + 6x$ for $0 \leq x \leq 6$ on the grid provided below.

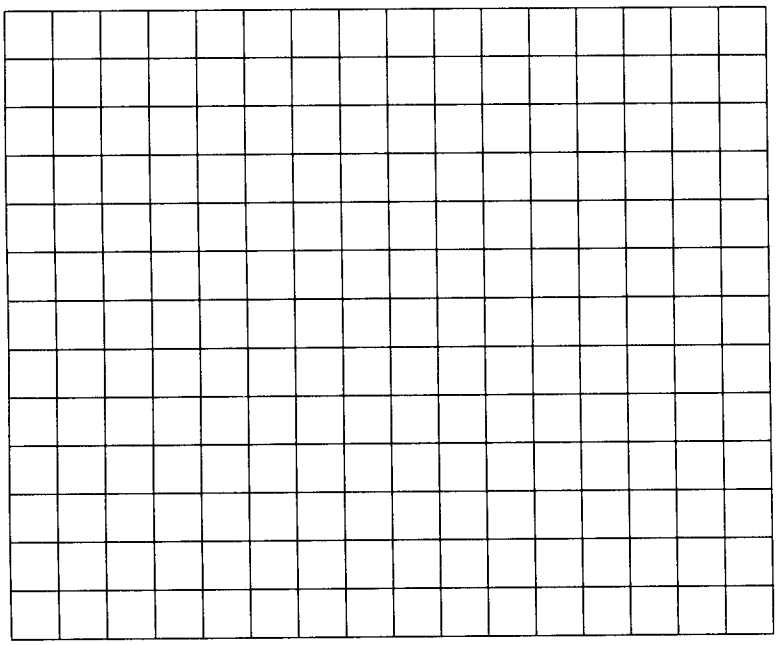


b At what time, x, is the ball at its highest point?

32 In the time trials for the 400-meter run at the state sectionals, the 15 runners recorded the times shown in the table below.

400-Meter Run	
Time (sec)	**Frequency**
50.0–50.9	
51.0–51.9	II
52.0–52.9	𝍸 I
53.0–53.9	III
54.0–54.9	IIII

a Using the data from the frequency column, draw a frequency histogram on the grid provided below.



b What percent of the runners completed the time trial between 52.0 and 53.9 seconds?

33 A group of 148 people is spending five days at a summer camp. The cook ordered 12 pounds of food for each adult and 9 pounds of food for each child. A total of 1,410 pounds of food was ordered.

a Write an equation *or* a system of equations that describes the above situation and define your variables.

b Using your work from part *a*, find:

(1) the total number of adults in the group

(2) the total number of children in the group

34 Three roses will be selected for a flower vase. The florist has 1 red rose, 1 white rose, 1 yellow rose, 1 orange rose, and 1 pink rose from which to choose.

a How many different 3-rose selections can be formed from the 5 roses?

b What is the probability that 3 roses selected at random will contain 1 red rose, 1 white rose, and 1 pink rose?

c What is the probability that 3 roses selected at random will *not* contain an orange rose?

35 The Excel Cable Company has a monthly fee of $32.00 and an additional charge of $8.00 for each premium channel. The Best Cable Company has a monthly fee of $26.00 and an additional charge of $10.00 for each premium channel. The Horton family is deciding which of these two cable companies to subscribe to.

a For what number of premium channels will the total monthly subscription fee for the Excel and Best Cable companies be the same?

b The Horton family decides to subscribe to 2 premium channels for a period of one year.

(1) Which cable company should they subscribe to in order to spend less money?

(2) How much money will the Hortons save in one year by using the less expensive company?

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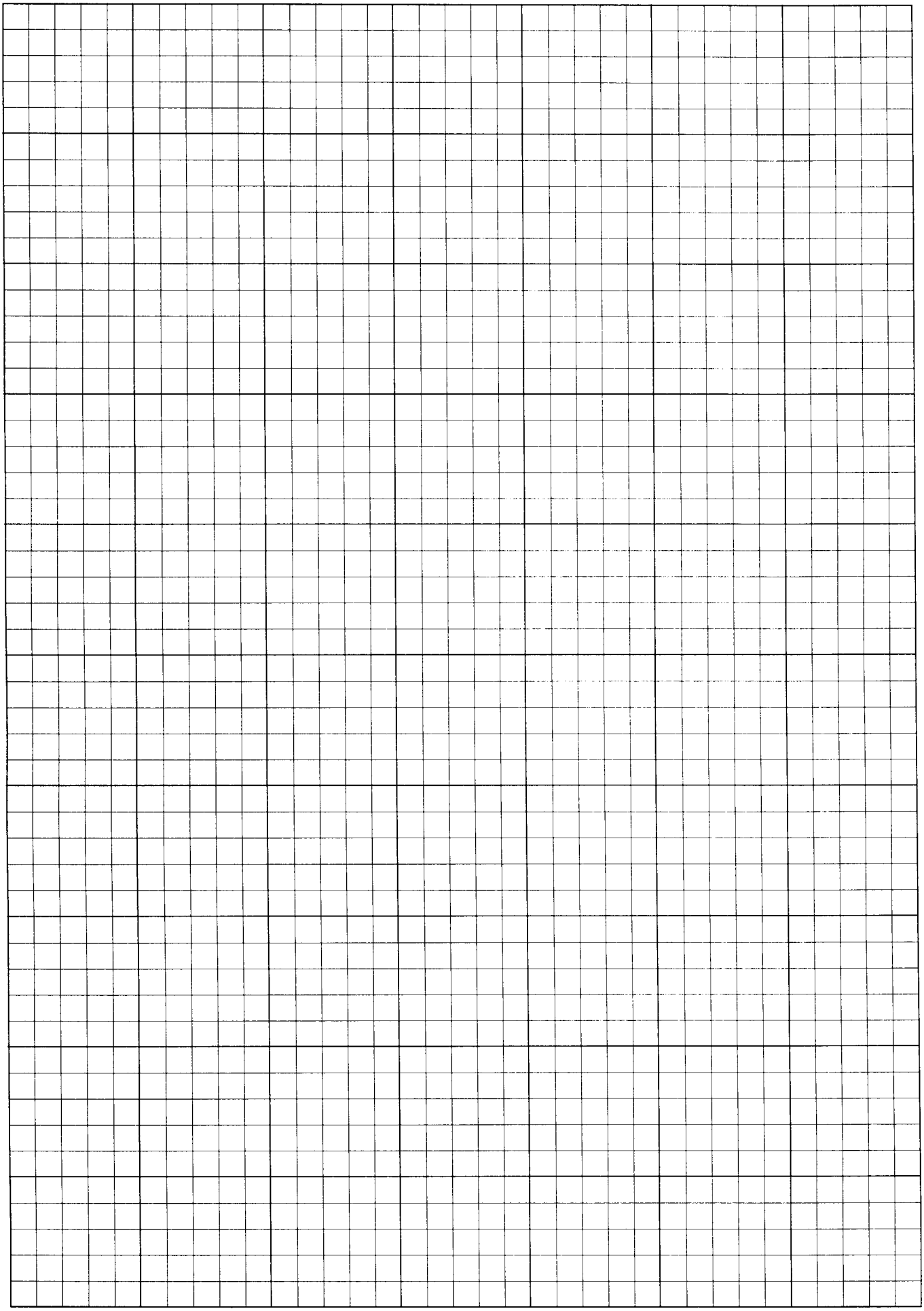
Scrap Graph Paper — This sheet will *not* be scored.



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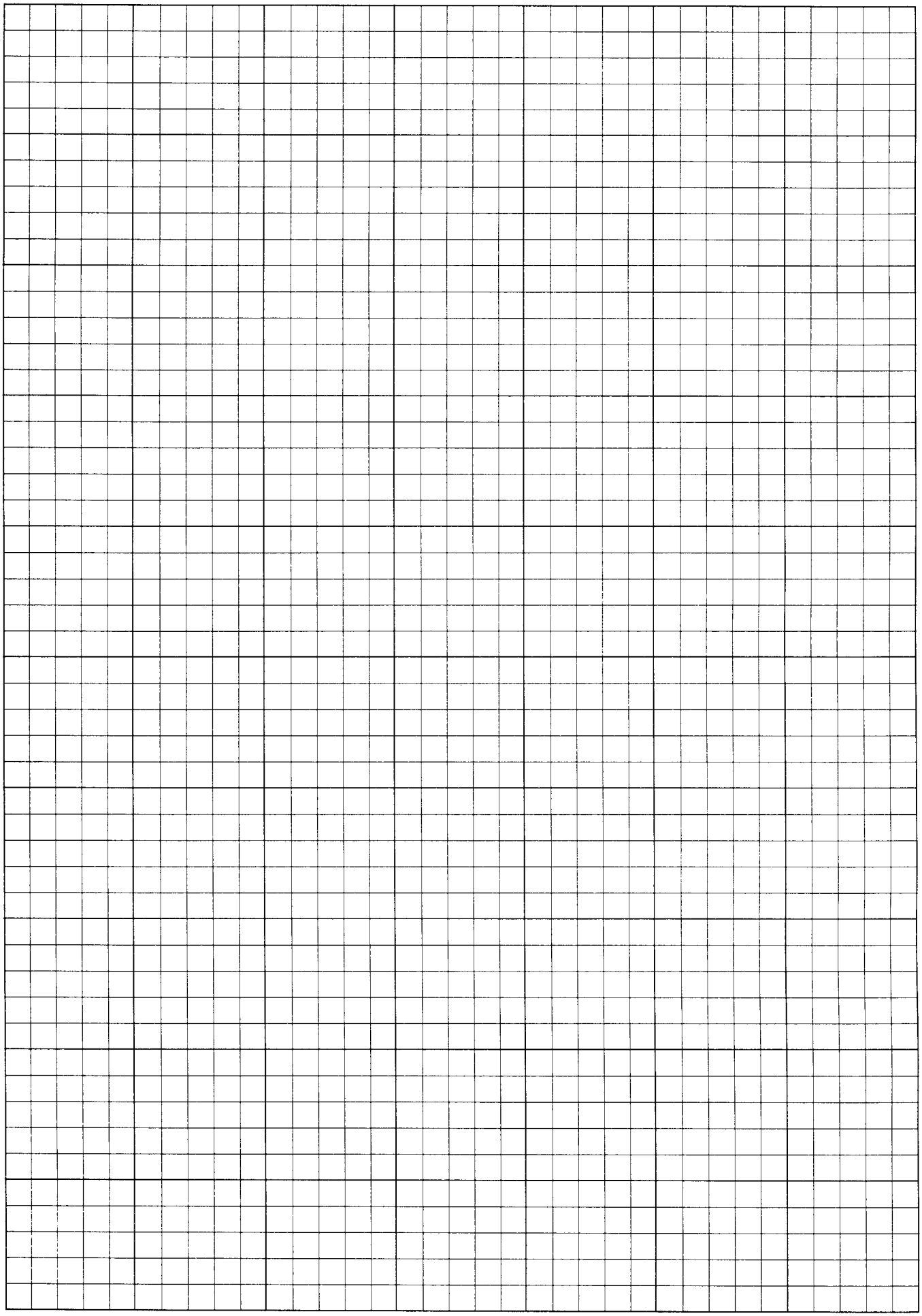

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The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

MATHEMATICS A

Tuesday, January 25, 2000 — 1:15 to 4:15 p.m., only

ANSWER SHEET

Pupil ..... Sex: ☐ Male ☐ Female Grade .....

Teacher ..... School .....

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

Part I

Answer all 20 questions in this part.

1	6	11	16 .....
2	7	12	17 .....
3	8	13	18 .....
4	9	14	19 .....
5	10	15	20 .....

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

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MATHEMATICS A			
Question	Maximum Credit	Credits Earned	Rater/Scorer's Initials
Part I 1–20	40		
Part II 21	2		
22	2		
23	2		
24	2		
25	2		
Part III 26	3		
27	3		
28	3		
29	3		
30	3		
Part IV 31	4		
32	4		
33	4		
34	4		
35	4		
Maximum Total	85		

Rater/Scorer's Name (minimum of three)

Total Raw Score | Checked by | Scaled Score

Notes to raters. . .

- Each paper should be scored by a minimum of three raters.
- The table for converting the total raw score to the scaled score is provided in the scoring key for this examination.
- The scaled score is the student's final examination score.

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FOR TEACHERS ONLY

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

MATHEMATICS A

Tuesday, January 25, 2000 — 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 Administering and Scoring the Regents Examination in Mathematics A.*

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/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 printed at the end of this key. 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 40 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) 3	(6) 3	(11) 4	(16) 1
(2) 1	(7) 3	(12) 2	(17) 3
(3) 3	(8) 2	(13) 1	(18) 4
(4) 1	(9) 4	(14) 4	(19) 2
(5) 1	(10) 1	(15) 4	(20) 2

Part II

For each question, use the specific criteria to award a maximum of two credits.

(21) **[2]** (–6,8) *or* –6,8 *or* $x = -6$ and $y = 8$ and an appropriate explanation is given, such as graphing the line or doubling the coordinates.

[1] One correct coordinate and one incorrect coordinate are found.

or

[1] An appropriate method is shown, such as algebraic or graphing, but computational mistakes are made.

or

[1] (–6,8) *or* –6,8 *or* $x = -6$ and $y = 8$ and no explanation is given.

or

[1] Substitutions are correct for the midpoint formula, but computational mistakes are made.

or

[1] The student properly locates point B on the graph but does not state its coordinates.

or

[1] Point A and point M are reversed, resulting in $B(3,-4)$, and an explanation is given.

[0] Only the midpoint of $\overline{AM}$ $\left(-\frac{3}{2},2\right)$ is found.

or

[0] A zero response is completely incorrect, irrelevant, or incoherent *or* is a correct response that was obtained by an obviously incorrect procedure.

(22) **[2]** 4.5 and an appropriate method is shown, such as the equation $3x + x + 2 = 20$ or some trial and error or arithmetic process.

[1] An appropriate method is shown, but the correct answer is not found.

or

[1] 4.5 and no work is shown.

or

[1] The student solves the equation $x + 3x - 2 = 20$ and answers 5.5.

[0] A zero response is completely incorrect, irrelevant, or incoherent *or* is a correct response that was obtained by an obviously incorrect procedure.

(23) **[2]** 8 and the use of trigonometry, the Pythagorean theorem, *or* Pythagorean triple is shown.

[1] The Pythagorean theorem *or* trigonometry is used, but a computational mistake is made *or* substitution is incorrect, such as $6^2 = 10^2 + x^2$.

or

[1] 8 and 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.

(24) **[2]** 12 and an appropriate explanation is given.

[1] The student uses an appropriate method, such as showing $\frac{k-2}{3-1} = 5$ or graphing of a line through (1,2) having a slope of 5, but the correct answer is not found.

or

[1] 12 and no explanation is given.

[0] A zero response is completely incorrect, irrelevant, or incoherent *or* is a correct response that was obtained by an obviously incorrect procedure.

(25) **[2]** The student draws a parallelogram, which is not a rectangle, with four sides and four angles labeled, such as angles of 60, 120, 60, and 120 and sides of 4, 6, 4, and 6.

[1] A parallelogram *or* rhombus, *not* a square, is drawn, which does not have measures for all lengths or angles.

[0] Angles and/or lengths are *not* appropriate for a parallelogram.

or

[0] A zero response is completely incorrect, irrelevant, or incoherent *or* is a correct response that was obtained by an obviously incorrect procedure.

Part III

For each question, use the specific criteria to award a maximum of three credits.

(26) **[3]** 95 and an appropriate method is shown that obtains an answer, such as 344 – 249 or a similar equation or method.

or

[3] Four scores are tried that round off to an average of 86, such as 93 or 94. Round off to 86 must be shown.

[2] An appropriate method is shown, but one computational mistake is made.

[1] The student understands weighted average and shows that the average of 83 for 3 tests is a total of 249 points.

or

[1] 95 and 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.

(27) **[3]** 3 hours and an appropriate method or equation is shown, such as $45(x + 1) = 60x$.

[2] An appropriate method is shown, but an incorrect answer is found, such as 4 hours (the truck's time) or 180 miles traveled.

[1] An appropriate equation or method is shown, but no answer is found, such as showing an equation that reflects a one-hour difference in time but it is not solved.

or

[1] 3 hours and 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.

(28) *a* **[2]** 15 and an appropriate method is shown, such as finding $GB = JC = 2x$ and $FC = ED = HJ = 3$.

[1] 15 and no work is shown.

or

[1] At least one of the values is correct, as shown above, and the area is calculated based on the incorrect value.

b **[1]** Any form equivalent to $(2x + 5)(x + 3)$ is shown, such as $5x + 2x^2 + 6x + 15$.

or

[1] Any correct total area based on the student's incorrect answer in part *a* is found.

a and *b*

[0] A zero response is completely incorrect, irrelevant, or incoherent *or* is a correct response that was obtained by an obviously incorrect procedure.

(29) *a* **[2]** A correct circle is sketched with its center at (2,1) and a radius of 3 and the line $2x + y = 8$ is drawn.

[1] Only one of the graphs is sketched correctly.

b **[1]** 2

or

[1] The correct number of intersections is found, based on the incorrect graphs drawn in part *a*.

a and *b*

[0] A zero response is completely incorrect, irrelevant, or incoherent *or* is a correct response that was obtained by an obviously incorrect procedure.

(30) **[3]** 3, 12, and 30 and an appropriate arithmetic method or equation is shown, such as $40x^3 = 1080$.

[2] An appropriate equation or method is shown, but not all three dimensions are found.

or

[2] An appropriate method is shown, and although one computational mistake is made, the student does find three dimensions based on this mistake, such as dividing 1080 by 40 incorrectly.

[1] The student shows that multiplication is required to find volume but sets up an incorrect method and does not find three dimensions.

or

[1] 3, 12, and 30 and no work is shown.

[0] The sum is used instead of the product.

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 four credits.

(31) *a* **[3]** A parabola is correctly graphed through (0,0), (1,5), (2,8), (3,9), (4,8), (5,5), and (6,0).

[2] The correct table of values is shown but is not graphed through the entire domain.

or

[2] The correct points are graphed but as a broken line graph not a curve.

or

[2] At least three values are correctly calculated and graphed.

[1] At least two of the values are correctly calculated, and the student tried to graph all points.

b **[1]** 3

or

[1] The correct time, x, for an incorrect graph in part *a* is found.

a and *b*

[0] A zero response is completely incorrect, irrelevant, or incoherent *or* is a correct response that was obtained by an obviously incorrect procedure.

(32) *a* **[2]** An appropriate histogram is drawn with both axes labeled with a correct numerical scale.

[1] A correct bar graph is drawn.

or

[1] The parts of the histogram are not labeled.

or

[1] Equal interval scales are not shown.

or

[1] One error on frequency calculation is made.

[0] Two or more mistakes on frequency calculation are made.

b **[2]** 60% and an appropriate explanation is given.

[1] An appropriate method to find percent is shown, but a mistake is made in reading the chart, such as $\frac{6}{15} = 40\%$ or $\frac{9}{15}$ is shown but not given as a percent answer.

or

[1] 60% and no explanation is given.

a and *b*

[0] A zero response is completely incorrect, irrelevant, or incoherent *or* is a correct response that was obtained by an obviously incorrect procedure.

(33) *a* **[2]** An appropriate equation or system is shown, such as $x + y = 148$ and $12x + 9y = 1410$ or one equation such as $12(148 - x) + 9x = 1410$ with variables identified.

[1] The student shows appropriate equation(s), but variables are not defined.

or

[1] One mistake in equation(s) is made, *or* only one equation with two variables is shown, but variables are defined.

b (1)

[1] 26 and an appropriate method is shown, such as solving the equation or making a table.

or

[1] An appropriate answer is found based on incorrect equation(s) obtained in part *a*.

b (2)

[1] 122 and an appropriate method is shown, such as 148 – 26.

or

[1] An appropriate answer is found based on incorrect equation(s) obtained in part *a*.

b (1) and *b* (2)

[1] 26 and 122 and no work is shown.

a and *b*

[0] A zero response is completely incorrect, irrelevant, or incoherent *or* is a correct response that was obtained by an obviously incorrect procedure.

(34) *a* **[2]** 10 and an appropriate tree diagram, list, sample space, *or* ${}_5C_3 = 10$ is shown.

[1] 10 and no work is shown.

or

[1] An appropriate method is shown, but not all 10 possible combinations are listed.

b **[1]** $\frac{1}{10}$

or

[1] An appropriate answer is found for an incorrect response in part *a*.

c **[1]** $\frac{4}{10}$ *or* $\frac{2}{5}$ *or* 0.4

or

[1] An appropriate answer is found for an incorrect response in part *a*.

a and *b* and *c*

[0] A zero response is completely incorrect, irrelevant, or incoherent *or* is a correct response that was obtained by an obviously incorrect procedure.

[9]

(35) *a* **[2]** 3 and an appropriate method is shown, such as trial and error or the equation $32 + 8x = 26 + 10x$.

[1] 3 and no work is shown.

or

[1] An appropriate method is shown, but an incorrect answer is found.

b (1)

[1] Best Cable Company and an appropriate explanation is given.

b (2)

[1] $24 and an appropriate explanation is given.

b (1) and *b* (2)

[1] Best Cable Company and $24 and no work is shown.

a and *b*

[0] A zero response is completely incorrect, irrelevant, or incoherent *or* is a correct response that was obtained by an obviously incorrect procedure.

Regents Examination in Mathematics A

January 2000

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

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. The school principal is responsible for assuring that the student's final examination score is based on a fair, accurate, and reliable scoring of the student's answer paper.

Because scaled scores corresponding to raw scores in the conversion chart may change from one examination to another, it is crucial that for each administration, the conversion chart provided in the scoring key 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.