

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

MATHEMATICS A

Wednesday, August 16, 2000 — 8:30 to 11:30 a.m., only

Print Your Name:

Print Your School's Name:

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

Scrap paper is not permitted for any part of this examination, but you may use the blank spaces in this booklet as scrap paper. A perforated sheet of scrap graph paper is provided at the end of this booklet for any question for which graphing may be helpful but is not required. 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 minimum of 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]

1 The product of $2x^3$ and $6x^5$ is

- (1) $10x^8$ (3) $10x^{15}$
(2) $12x^8$ (4) $12x^{15}$

Use this space for
computations.

2 A hockey team played n games, losing four of them and winning the rest. The ratio of games won to games lost is

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

3 In the coordinate plane, what is the total number of points 5 units from the origin and equidistant from both the x - and y -axes?

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

4 Expressed in decimal notation, 4.726×10^{-3} is

- (1) 0.004726 (3) 472.6
(2) 0.04726 (4) 4,726

5 Which table does *not* show an example of direct variation?

(1)

x	y
1	4
2	8
3	12
4	16

(3)

x	y
1	$\frac{1}{2}$
2	1
3	$\frac{3}{2}$
4	2

(2)

x	y
2	24
4	12
6	8
8	6

(4)

x	y
-4	-20
-3	-15
-2	-10
-1	-5

Use this space for computations.

6 If $a < b$, $c < d$, and a , b , c , and d are all greater than 0, which expression is always true?

- (1) $a - c + b - d = 0$ (3) $\frac{a}{d} > \frac{b}{c}$
(2) $a + c > b + d$ (4) $ac < bd$

7 The volume of a cube is 64 cubic inches. Its total surface area, in square inches, is

- (1) 16 (3) 96
(2) 48 (4) 576

8 On an English examination, two students received scores of 90, five students received 85, seven students received 75, and one student received 55. The average score on this examination was

- (1) 75 (3) 77
(2) 76 (4) 79

9 Which equation represents a line parallel to the line $y = 2x - 5$?

- (1) $y = 2x + 5$ (3) $y = 5x - 2$
(2) $y = -\frac{1}{2}x - 5$ (4) $y = -2x - 5$

10 The operation $*$ for the set $\{p, r, s, v\}$ is defined in the accompanying table. What is the inverse element of r under the operation $*$?

$*$	p	r	s	v
p	s	v	p	r
r	v	p	r	s
s	p	r	s	v
v	r	s	v	p

- (1) p (3) s
(2) r (4) v

11 A box contains six black balls and four white balls. What is the probability of selecting a black ball at random from the box?

- (1) $\frac{1}{10}$ (3) $\frac{4}{6}$
(2) $\frac{6}{10}$ (4) $\frac{6}{4}$

12 The solution set for the equation $x^2 - 2x - 15 = 0$ is

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

13 What is the value of y in the following system of equations?

$$2x + 3y = 6$$

$$2x + y = -2$$

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

Use this space for
computations.

14 What is the converse of the statement “If it is sunny, I will go swimming”?

- (1) If it is not sunny, I will not go swimming.
(2) If I do not go swimming, then it is not sunny.
(3) If I go swimming, it is sunny.
(4) I will go swimming if and only if it is sunny.

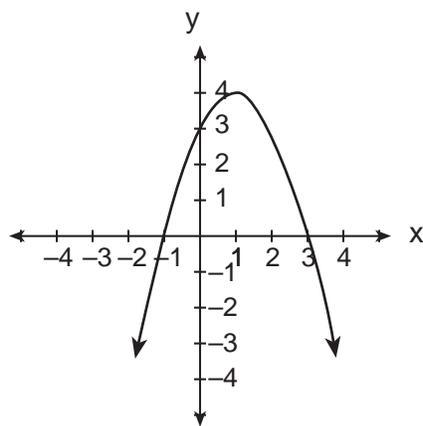
15 Solve for x : $15x - 3(3x + 4) = 6$

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

16 The expression $2\sqrt{50} - \sqrt{2}$ is equivalent to

- (1) $2\sqrt{48}$ (3) $9\sqrt{2}$
(2) 10 (4) $49\sqrt{2}$

17 Which is an equation of the parabola shown in the accompanying diagram?



- (1) $y = -x^2 + 2x + 3$ (3) $y = x^2 + 2x + 3$
(2) $y = -x^2 - 2x + 3$ (4) $y = x^2 - 2x + 3$

18 If two sides of a triangle are 1 and 3, the third side may be

(1) 5

(3) 3

(2) 2

(4) 4

**Use this space for
computations.**

19 A girl can ski down a hill five times as fast as she can climb up the same hill. If she can climb up the hill and ski down in a total of 9 minutes, how many minutes does it take her to climb up the hill?

(1) 1.8

(3) 7.2

(2) 4.5

(4) 7.5

20 When $3x^2 - 2x + 1$ is subtracted from $2x^2 + 7x + 5$, the result will be

(1) $-x^2 + 9x + 4$

(3) $-x^2 + 5x + 6$

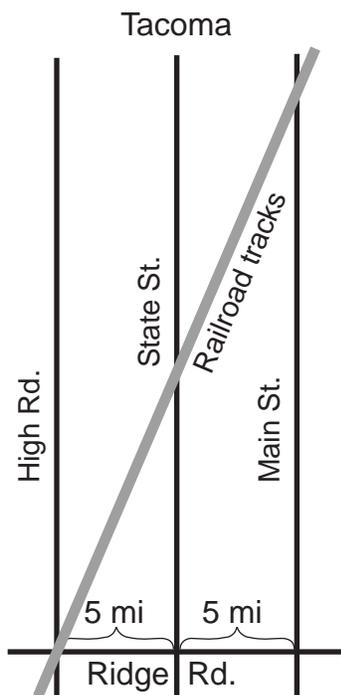
(2) $x^2 - 9x - 4$

(4) $x^2 + 5x + 6$

Part II

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

- 21 The accompanying diagram shows a section of the city of Tacoma. High Road, State Street, and Main Street are parallel and 5 miles apart. Ridge Road is perpendicular to the three parallel streets. The distance between the intersection of Ridge Road and State Street and where the railroad tracks cross State Street is 12 miles. What is the distance between the intersection of Ridge Road and Main Street and where the railroad tracks cross Main Street?



22 Perform the indicated operation and express the result in simplest terms:

$$\frac{x}{x+3} \div \frac{3x}{x^2-9}$$

23 Kerry is planning a rectangular garden that has dimensions of 4 feet by 6 feet. Kerry wants one-half of the garden to have roses, and she says that the rose plot will have dimensions of 2 feet by 3 feet. Is she correct? Explain.

24 The sum of the ages of the three Romano brothers is 63. If their ages can be represented as consecutive integers, what is the age of the middle brother?

25 Alan, Becky, Jesus, and Mariah are four students in the chess club. If two of these students will be selected to represent the school at a national convention, how many combinations of two students are possible?

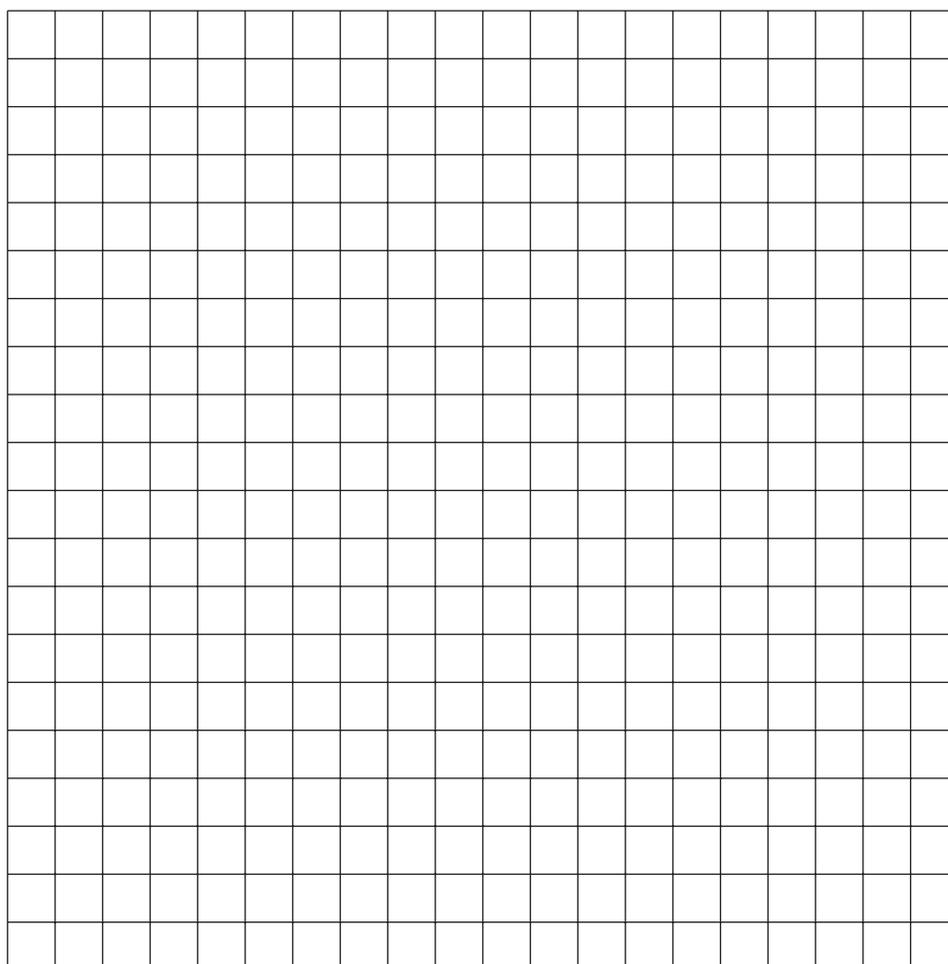
Part III

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 John, Dan, Karen, and Beth went to a costume ball. They chose to go as Anthony and Cleopatra, and Romeo and Juliet. John got the costumes for Romeo and Cleopatra, but not his own costume. Dan saw the costumes for Juliet and himself. Karen went as Anthony. Beth drove two of her friends, who were dressed as Anthony and Cleopatra, to the ball. What costume did John wear?

27 To measure the length of a hiking trail, a worker uses a device with a 2-foot-diameter wheel that counts the number of revolutions the wheel makes. If the device reads 1,100.5 revolutions at the end of the trail, how many miles long is the trail, to the *nearest tenth of a mile*?

28 The coordinates of the endpoints of \overline{AB} are $A(2,6)$ and $B(4,2)$. Is the image $\overline{A''B''}$ the same if it is reflected in the x -axis, then dilated by $\frac{1}{2}$ as the image is if it is dilated by $\frac{1}{2}$, then reflected in the x -axis? Justify your answer. [*The use of the accompanying grid is optional.*]



29 After an ice storm, the following headlines were reported in the *Glacier County Times*:

Monday: Ice Storm Devastates County — 8 out of every 10 homes lose electrical power

Tuesday: Restoration Begins — Power restored to $\frac{1}{2}$ of affected homes

Wednesday: More Freezing Rain — Power lost by 20% of homes that had power on Tuesday

Based on these headlines, what fractional portion of homes in Glacier County had electrical power on Wednesday?

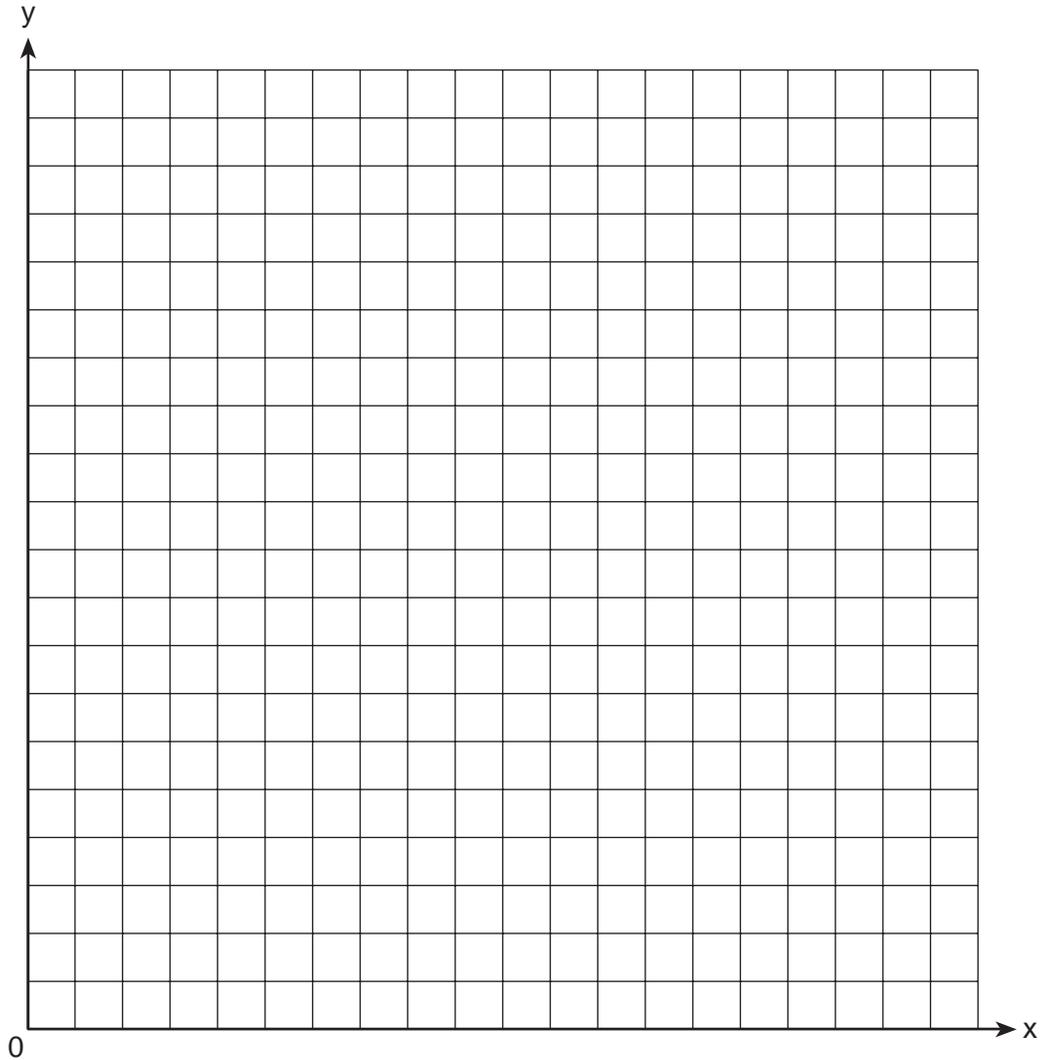
30 Katrina hikes 5 miles north, 7 miles east, and then 3 miles north again. To the *nearest tenth of a mile*, how far, in a straight line, is Katrina from her starting point?

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 Mr. Santana wants to carpet exactly half of his rectangular living room. He knows that the perimeter of the room is 96 feet and that the length of the room is 6 feet longer than the width. How many square feet of carpeting does Mr. Santana need?

32 Ashanti is surveying for a new parking lot shaped like a parallelogram. She knows that three of the vertices of parallelogram $ABCD$ are $A(0,0)$, $B(5,2)$, and $C(6,5)$. Find the coordinates of point D and sketch parallelogram $ABCD$ on the accompanying set of axes. Justify mathematically that the figure you have drawn is a parallelogram.



33 A 10-foot ladder is to be placed against the side of a building. The base of the ladder must be placed at an angle of 72° with the level ground for a secure footing. Find, to the *nearest inch*, how far the base of the ladder should be from the side of the building *and* how far up the side of the building the ladder will reach.

34 The telephone company has run out of seven-digit telephone numbers for an area code. To fix this problem, the telephone company will introduce a new area code. Find the number of new seven-digit telephone numbers that will be generated for the new area code if both of the following conditions must be met:

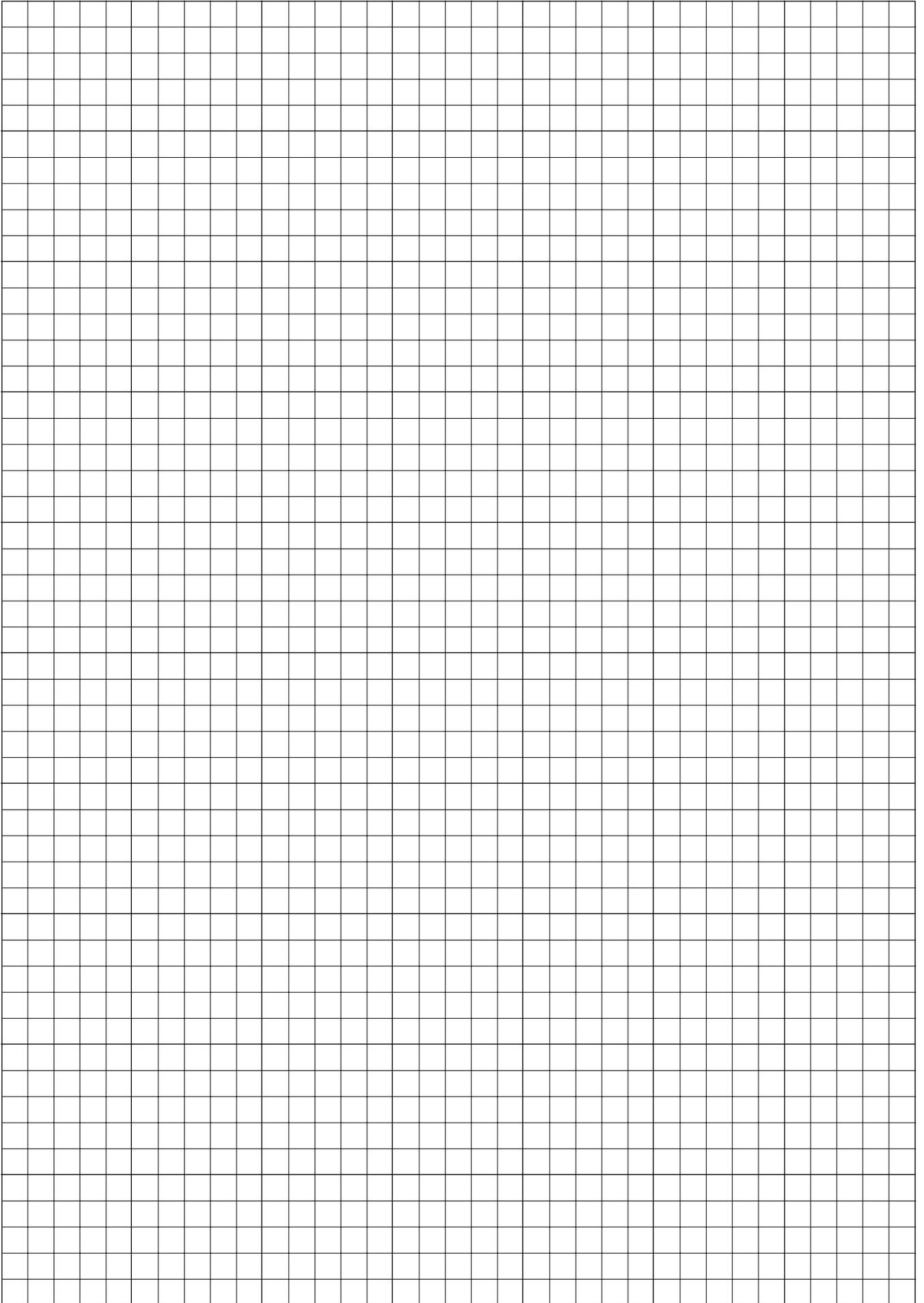
- The first digit cannot be a zero or a one.
- The first three digits cannot be the emergency number (911) or the number used for information (411).

35 Jack is building a rectangular dog pen that he wishes to enclose. The width of the pen is 2 yards less than the length. If the area of the dog pen is 15 square yards, how many yards of fencing would he need to completely enclose the pen?

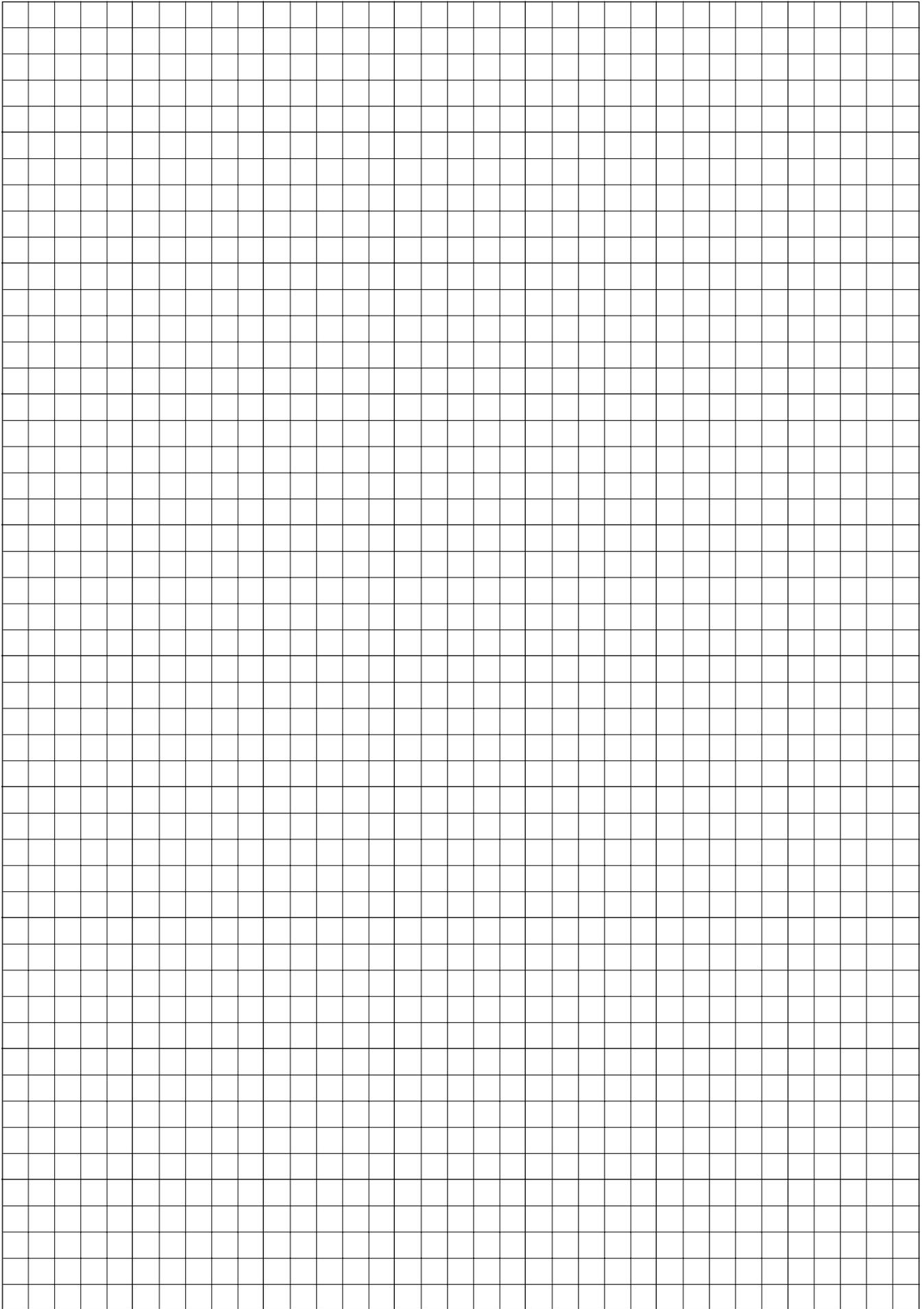
Scrap Graph Paper — This sheet will not be scored.

Tear Here

Tear Here



Scrap Graph Paper — This sheet will not be scored.



Tear Here

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MATHEMATICS A

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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

Tear Here

FOR TEACHERS ONLY

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

MATHEMATICS A

Wednesday, August 16, 2000 — 8:30 to 11:30 a.m., only

SCORING KEY

Mechanics of Rating

The following procedures are to be followed for scoring student answer papers for the 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) 2	(6) 4	(11) 2	(16) 3
(2) 1	(7) 3	(12) 2	(17) 1
(3) 4	(8) 4	(13) 4	(18) 3
(4) 1	(9) 1	(14) 3	(19) 4
(5) 2	(10) 4	(15) 3	(20) 1

Part II

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

- (21) **[2]** 24 miles and appropriate work is shown, such as using a proportion, showing doubling of the sides, or using any other appropriate method.
- [1]** Appropriate work is shown, but one computational or substitution error is made.
- or**
- [1]** An incorrect proportion is appropriately solved.
- or**
- [1]** 24 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.
- (22) **[2]** $\frac{x-3}{3}$ and multiplication by the reciprocal, correct factoring, and canceling are shown.
- [1]** The difference of two squares, $x^2 - 9 = (x + 3)(x - 3)$, is factored correctly.
- or**
- [1]** Appropriate work is shown, but the final answer is incorrect.
- or**
- [1]** $\frac{x-3}{3}$ 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.

- (23) [2] Kerry is incorrect and an explanation is given that the original area is 24 ft^2 and the area of the rose plot is 6 ft^2 , which is not half of 24 ft^2 .

or

- [2] Kerry is incorrect and an explanation is given that since the original area is 24 ft^2 , the area of the rose plot should be 12 ft^2 , so the new dimensions should multiply to 12, such as 3×4 , 4×3 , 2×6 , or 6×2 .

or

- [2] Kerry is incorrect and a diagram is used to show the original area is 24 ft^2 and the area of the rose plot is 6 ft^2 .

- [1] Kerry is incorrect but the work or diagram shows one error.

or

- [1] Appropriate work is shown, but the incorrect conclusion is found.

- [0] Kerry is incorrect or correct but no explanation is given.

or

- [0] Kerry is correct and $\frac{1}{2}(4) = 2$ or $\frac{1}{2}(6) = 3$ is shown.

or

- [0] Kerry is correct and the student uses the perimeter.

or

- [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] 21 and the student shows an appropriate solution, such as the equation $x + x + 1 + x + 2 = 63$ or trial and error.
- [1] Appropriate work is shown, but an incorrect answer is found.
- or**
- [1] An incorrect equation is shown, but it is solved appropriately to find an answer, such as $x + x + 2 + x + 4 = 63$.
- or**
- [1] 21 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.
- (25) [2] 6 and appropriate work is shown, such as using the combination ${}_4C_2$, listing all six possible outcomes, or drawing a correct tree diagram.
- [1] A correct setup of combinations is shown, but an incorrect solution, such as leaving ${}_4C_2$, or no integral solution is found.
- or**
- [1] An appropriate list or tree diagram is shown, but an incorrect solution is found, such as 5, by omitting one of the possible combinations.
- or**
- [1] 12 but a complete list or tree diagram is shown.
- or**
- [1] 6 but no work is shown.
- [0] The answer is completely incorrect, such as ${}_4P_2$ or $4 \nless 3$.
- 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] Juliet and an explanation is given of how the identification was reached, such as by a narrative or table.

[2] One error is made in the logic statements or the table, but appropriate results are found.

[1] More than one error is made in the logic statements or the table, but appropriate work is shown.

or

[1] Juliet 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.

(27) [3] 1.3 and appropriate work is shown, such as calculating the circumference of the wheel and the length of the trail in feet, and converting them to miles, such as $\frac{2 \cdot \pi \cdot 1100.5}{5280}$.

[2] The student correctly calculates the circumference and length in feet but does not convert them to miles.

or

[2] Correct calculations are shown, but the answer is rounded incorrectly or is not rounded.

or

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

[1] The correct circumference is calculated.

or

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

or

[1] 1.3 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.

(28) [3] Yes, $A\mathcal{C}$ is $(1,-3)$ and $B\mathcal{C}$ is $(2,-1)$ and appropriate work is shown, algebraically or graphically.

[2] Correct coordinates for $A\mathcal{C}$ and $B\mathcal{C}$ are found, but no conclusion is shown.

or

[2] Either $A\mathcal{C}$ or $B\mathcal{C}$ is correct, and an appropriate conclusion is shown.

or

[2] One transformation is correct and one is incorrect, such as the reflection in y , but an appropriate conclusion is shown.

[1] Neither transformation is correct, but an appropriate conclusion is shown.

or

[1] One transformation is correct.

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

(29) [3] $\frac{48}{100}$ or any equivalent fraction or 0.48 or 48% and appropriate work is shown, such as on Monday $\frac{2}{10}$ have power, $\frac{8}{10}$ lost power; on Tuesday $\frac{1}{2}\left(\frac{8}{10}\right) = \frac{4}{10}$ have been restored, therefore $\frac{2}{10} + \frac{4}{10} = \frac{6}{10}$ have power; on Wednesday $\frac{2}{10}$ lose power, therefore $\left(\frac{8}{10}\right)\left(\frac{6}{10}\right) = \frac{48}{100}$ have power.

[2] Appropriate work is shown, but one computational error is made, leading to a fractional answer.

or

[2] One error of having or losing power is made, such as taking 20% of $\frac{4}{10}$.

[1] Appropriate work is shown, but multiple computational errors are made.

or

[1] The correct answer is found, 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.

(30) [3] 10.6 and the Pythagorean theorem, $C^2 = 8^2 + 7^2$, or any other appropriate method is shown.

[2] Appropriate work is shown, but the answer is left as $\sqrt{113}$ or is rounded incorrectly.

or

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

[1] Appropriate work is shown, but multiple errors are made.

or

[1] The only correct work shown is a correctly drawn diagram with three distances labeled.

or

[1] 10.6 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.

- (31) [4] 283.5 or 284 and appropriate work or an explanation is shown, such as $4x + 12 = 96$, $\frac{21 \cancel{+} 27}{2}$, or trial and error.

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

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

or

[2] 283.5 or 284 and only a check is shown.

[1] Appropriate work is shown, but no answer is found.

or

[1] 283.5 or 284 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) [4] The student draws parallelogram $ABCD$ correctly, identifies $D(1,3)$, and justifies the coordinates of D by using any appropriate method to show $ABCD$ is a parallelogram.

[3] The student draws parallelogram $ABCD$ incorrectly but justifies D appropriately.

or

[3] The student draws parallelogram $ABCD$ correctly and identifies $D(1,3)$, but the justification is incomplete.

[2] The student draws parallelogram $ABCD$ correctly and identifies $D(1,3)$, but no justification is shown.

[1] The student either draws parallelogram $ABCD$ correctly or identifies $D(1,3)$ correctly.

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

- (33) [4] 114" (9 feet 6 inches) and 37" (3 feet 1 inch) and appropriate work is shown, such as $\sin 72^\circ = \frac{x}{10}$ and $\cos 72^\circ = \frac{y}{10}$ or use of the Pythagorean theorem.
- [3] An incorrect diagram is drawn, but appropriate work and an appropriate solution for that diagram are shown.
- or**
- [3] Appropriate work is shown, but the answers are rounded to the nearest foot and then converted to inches, arriving at 120" and 36".
- or**
- [3] The setup is correct, but the answers are not converted to the nearest inch.
- [2] One correct dimension is shown, such as 114" (9 feet 6 inches) or 37" (3 feet 1 inch).
- or**
- [2] Only one error involving interchanging sine and cosine is made.
- or**
- [2] An incorrect diagram is drawn, and the solution is appropriate for the diagram but is not rounded to the nearest inch.
- [1] The student switches sine and cosine and does not round to the nearest inch.
- or**
- [1] The student uses the correct trigonometric function to compute one side correctly but does not convert it to the nearest inch.
- or**
- [1] 114" (9 feet 6 inches) and 37" (3 feet 1 inch) 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) [4] 7.98×10^6 or 7,980,000 and appropriate work is shown, such as $8 \times 10^6 - 2 \times 10^4$.

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

or

[3] The student uses 1–9 instead of 0–9 as the number of digits in $8 \times 9^6 - 2 \times 9^4$.

[2] The student correctly produces only one part, 8×10^6 or 2×10^4 , but carries the process to an appropriate result.

or

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

[1] The student produces only one part, 8×9^6 or 2×9^4 .

or

[1] 7,980,000 but no work is shown.

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

(35) [4] 16 and appropriate work is shown, such as $W(W + 2) = 15$.

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

or

[3] $L = 5$, $W = 3$, and the perimeter = 16, but no work is shown.

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

or

[2] $L = 5$, $W = 3$, and appropriate work is shown, but the perimeter is not found.

or

[2] The length and width are incorrect, but the perimeter is computed appropriately.

[1] Length and width are appropriately defined in terms of a single variable.

or

[1] 16 but no work is shown.

[0] $L = 5$ and $W = 3$ but no work is shown, and the perimeter is not 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.

MATHEMATICS A

Map to Learning Standards

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

Regents Examination in Mathematics A

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

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.