

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

MATHEMATICS A

Friday, June 15, 2001 — 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 to 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 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 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 A car travels 110 miles in 2 hours. At the same rate of speed, how far will the car travel in h hours?

- (1) $55h$ (3) $\frac{h}{55}$
(2) $220h$ (4) $\frac{h}{220}$

2 Which polynomial is the quotient of $\frac{6x^3 + 9x^2 + 3x}{3x}$?

- (1) $2x^2 + 3x + 1$ (3) $2x + 3$
(2) $2x^2 + 3x$ (4) $6x^2 + 9x$

3 If the length of a rectangular prism is doubled, its width is tripled, and its height remains the same, what is the volume of the new rectangular prism?

- (1) double the original volume
(2) triple the original volume
(3) six times the original volume
(4) nine times the original volume

4 One root of the equation $2x^2 - x - 15 = 0$ is

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

5 Which properties best describe the coordinate graph of two distinct parallel lines?

- (1) same slopes and same intercepts
(2) same slopes and different intercepts
(3) different slopes and same intercepts
(4) different slopes and different intercepts

Use this space for
computations.

6 Which statement is *not* always true about a parallelogram?

- (1) The diagonals are congruent.
- (2) The opposite sides are congruent.
- (3) The opposite angles are congruent.
- (4) The opposite sides are parallel.

7 In isosceles triangle DOG , the measure of the vertex angle is three times the measure of one of the base angles. Which statement about $\triangle DOG$ is true?

- (1) $\triangle DOG$ is a scalene triangle.
- (2) $\triangle DOG$ is an acute triangle.
- (3) $\triangle DOG$ is a right triangle.
- (4) $\triangle DOG$ is an obtuse triangle.

8 Which equation illustrates the distributive property for real numbers?

- (1) $\frac{1}{3} + \frac{1}{2} = \frac{1}{2} + \frac{1}{3}$
- (2) $\sqrt{3} + 0 = \sqrt{3}$
- (3) $(1.3 \times 0.07) \times 0.63 = 1.3 \times (0.07 \times 0.63)$
- (4) $-3(5 + 7) = (-3)(5) + (-3)(7)$

9 Factor completely: $3x^2 - 27$

- (1) $3(x - 3)^2$
- (2) $3(x^2 - 27)$
- (3) $3(x + 3)(x - 3)$
- (4) $(3x + 3)(x - 9)$

10 At a school costume party, seven girls wore masks and nine boys did not. If there were 15 boys at the party and 20 students did not wear masks, what was the total number of students at the party?

- (1) 30
- (2) 33
- (3) 35
- (4) 42

16 A boy got 50% of the questions on a test correct. If he had 10 questions correct out of the first 12, and $\frac{1}{4}$ of the remaining questions correct, how many questions were on the test?

- (1) 16 (3) 26
(2) 24 (4) 28

17 A hotel charges \$20 for the use of its dining room and \$2.50 a plate for each dinner. An association gives a dinner and charges \$3 a plate but invites four nonpaying guests. If each person has one plate, how many paying persons must attend for the association to collect the exact amount needed to pay the hotel?

- (1) 60 (3) 40
(2) 44 (4) 20

18 In the set of positive integers, what is the solution set of the inequality $2x - 3 < 5$?

- (1) {0,1,2,3} (3) {0,1,2,3,4}
(2) {1,2,3} (4) {1,2,3,4}

19 What is the total number of points of intersection in the graphs of the equations $x^2 + y^2 = 16$ and $y = 4$?

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

20 Which is a rational number?

- (1) $\sqrt{8}$ (3) $5\sqrt{9}$
(2) π (4) $6\sqrt{2}$
-

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 A school district offers hockey and basketball. The result of a survey of 300 students showed:

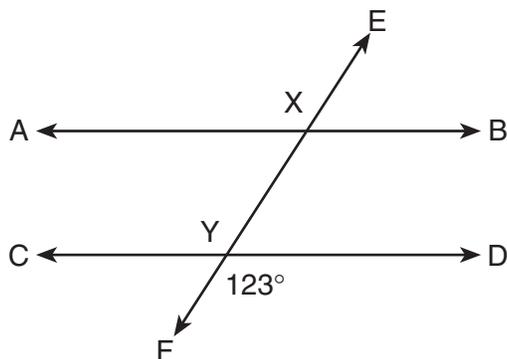
120 students play hockey, only

90 students play basketball, only

30 students do not participate in either sport

Of those surveyed, how many students play both hockey and basketball?

22 In the accompanying diagram, parallel lines \overline{AB} and \overline{CD} are intersected by transversal \overline{EF} at points X and Y , and $m\angle FYD = 123$. Find $m\angle AXY$.



23 Ben had twice as many nickels as dimes. Altogether, Ben had \$4.20. How many nickels *and* how many dimes did Ben have?

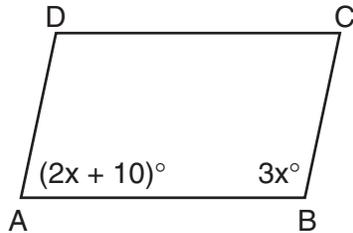
24 If a girl 1.2 meters tall casts a shadow 2 meters long, how many meters tall is a tree that casts a shadow 75 meters long at the same time?

25 There were seven students running in a race. How many different arrangements of first, second, and third place are possible?

Part III

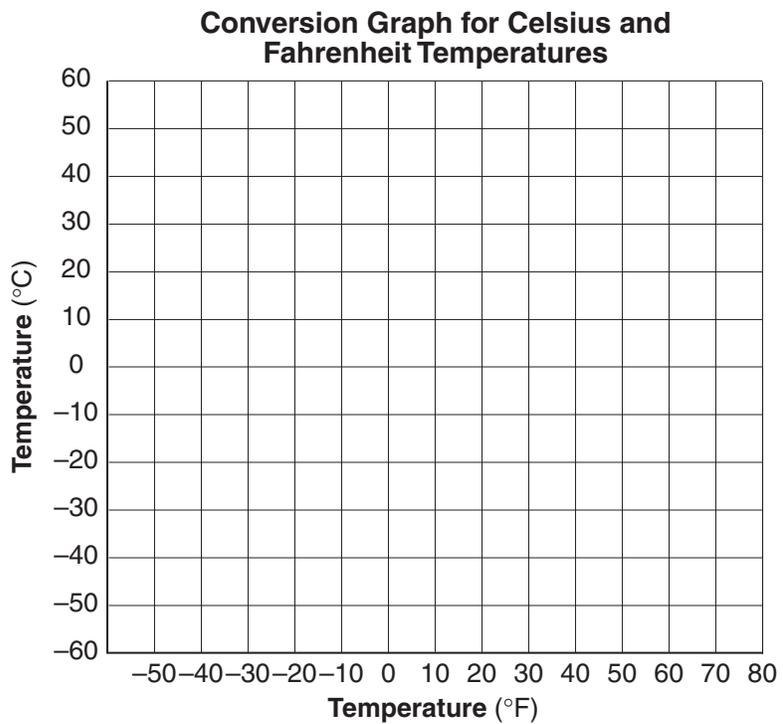
Answer all questions in this part. Each correct answer will receive 3 credits. Clearly indicate the necessary steps, including appropriate formula substitutions, diagrams, graphs, charts, etc. For all questions in this part, a correct numerical answer with no work shown will receive only 1 credit. [15]

- 26 In the accompanying diagram of parallelogram $ABCD$, $m\angle A = (2x + 10)$ and $m\angle B = 3x$. Find the number of degrees in $m\angle B$.

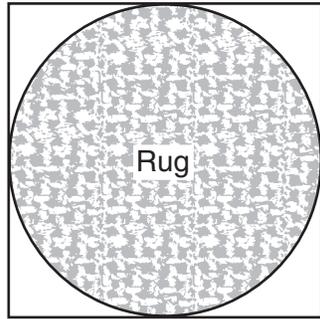


- 27 A factory packs CD cases into cartons for a music company. Each carton is designed to hold 1,152 CD cases. The Quality Control Unit in the factory expects an error of less than 5% over or under the desired packing number. What is the *least* number and the *most* number of CD cases that could be packed in a carton and still be acceptable to the Quality Control Unit?

28 Connor wants to compare Celsius and Fahrenheit temperatures by drawing a conversion graph. He knows that $-40^{\circ}\text{C} = -40^{\circ}\text{F}$ and that $20^{\circ}\text{C} = 68^{\circ}\text{F}$. On the accompanying grid, construct the conversion graph and, using the graph, determine the Celsius equivalent of 25°F .



- 29** Virginia has a circular rug on her square living room floor, as represented in the accompanying diagram. If her entire living room floor measures 100 square feet, what is the area of the part of the floor covered by the rug?



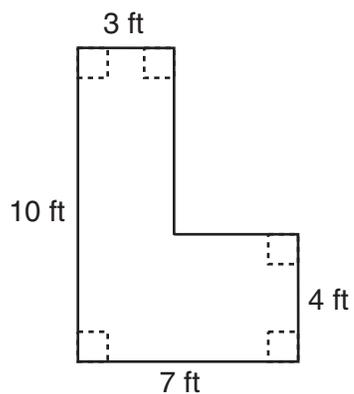
- 30** Mr. Yee has 10 boys and 15 girls in his mathematics class. If he chooses two students at random to work on the blackboard, what is the probability that both students chosen are girls?

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]

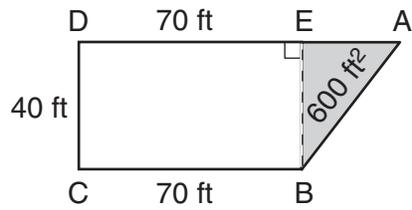
- 31 Find three consecutive odd integers such that the product of the first and the second exceeds the third by 8.

- 32** Keesha wants to tile the floor shown in the accompanying diagram. If each tile measures 1 foot by 1 foot and costs \$2.99, what will be the total cost, including an 8% sales tax, for tiling the floor?

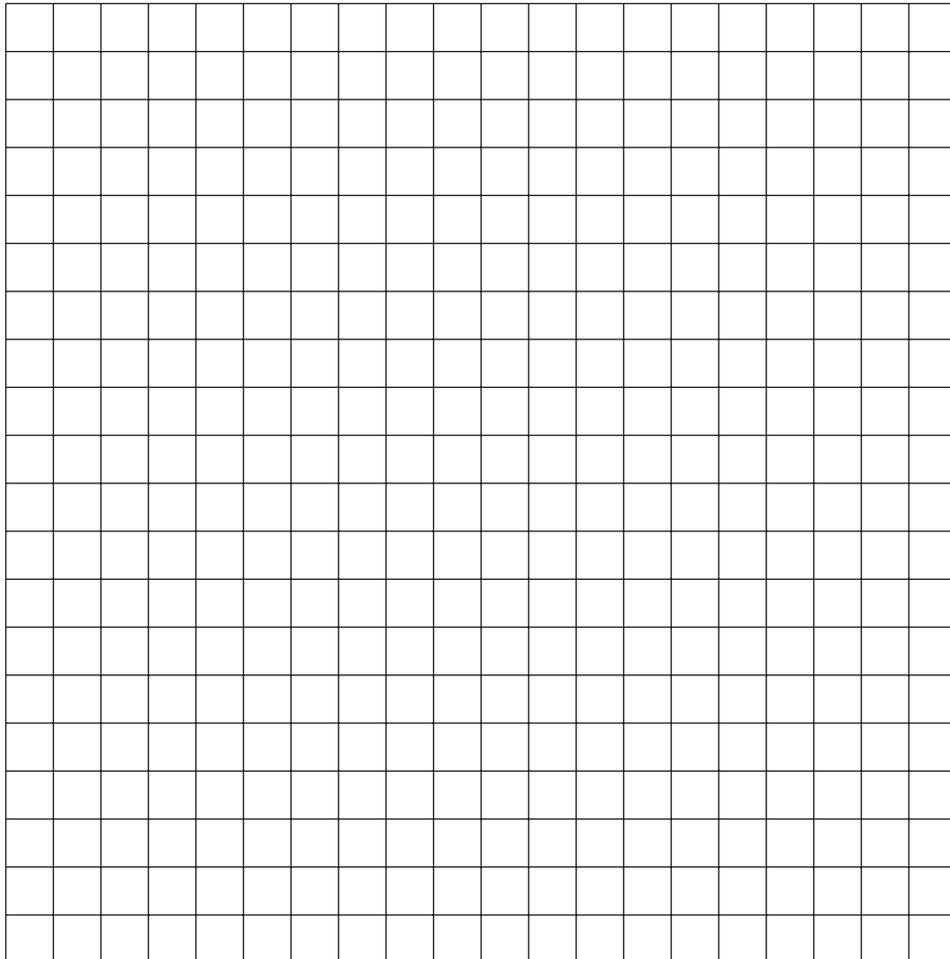


33 Ramón rented a sprayer and a generator. On his first job, he used each piece of equipment for 6 hours at a total cost of \$90. On his second job, he used the sprayer for 4 hours and the generator for 8 hours at a total cost of \$100. What was the hourly cost of *each* piece of equipment?

34 The plan of a parcel of land is represented by trapezoid $ABCD$ in the accompanying diagram. If the area of $\triangle ABE$ is 600 square feet, find the minimum number of feet of fence needed to completely enclose the entire parcel of land, $ABCD$.



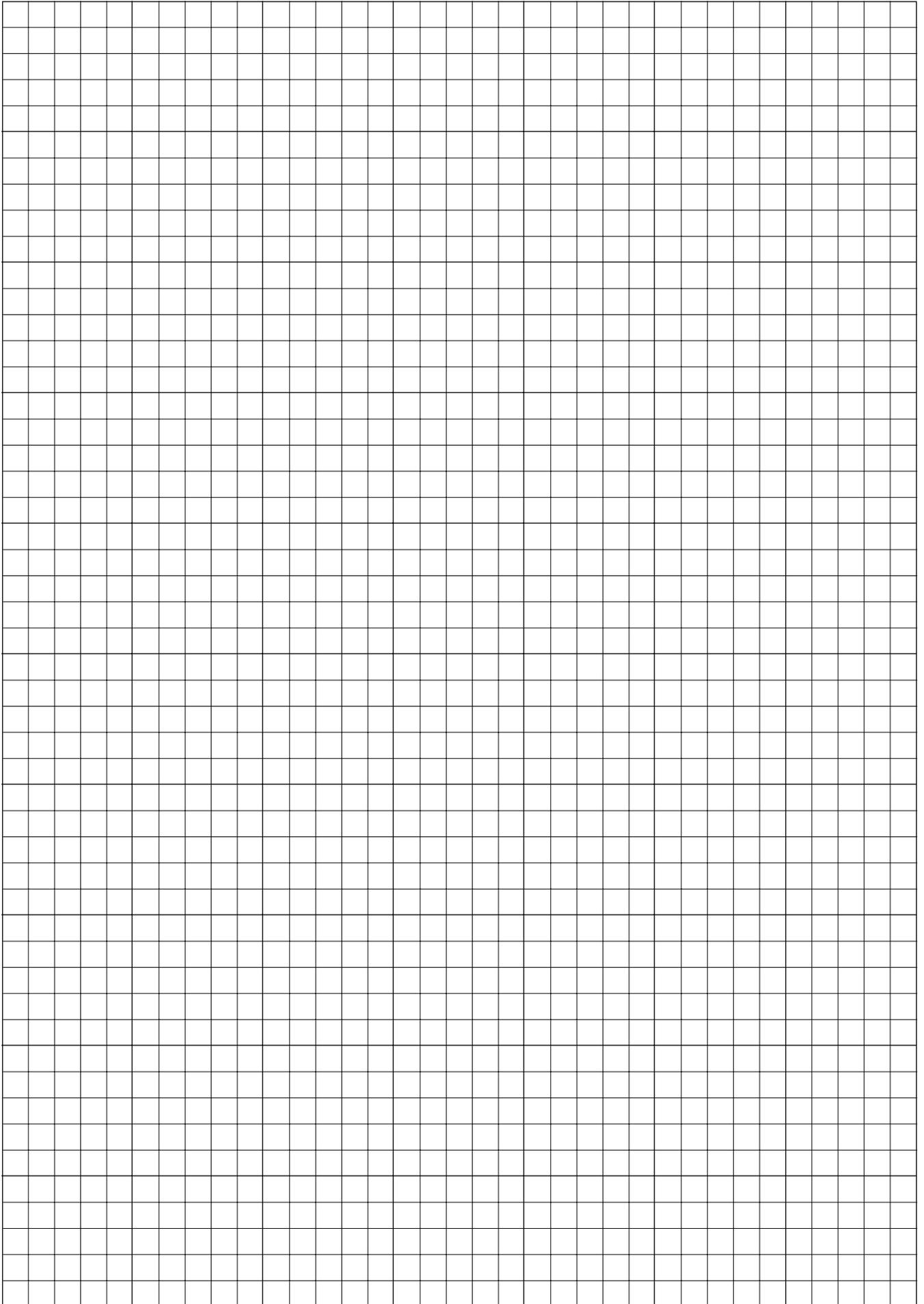
35 Triangle SUN has coordinates $S(0,6)$, $U(3,5)$, and $N(3,0)$. On the accompanying grid, draw and label $\triangle SUN$. Then, graph and state the coordinates of $\triangle S'U'N'$, the image of $\triangle SUN$ after a reflection in the y -axis.



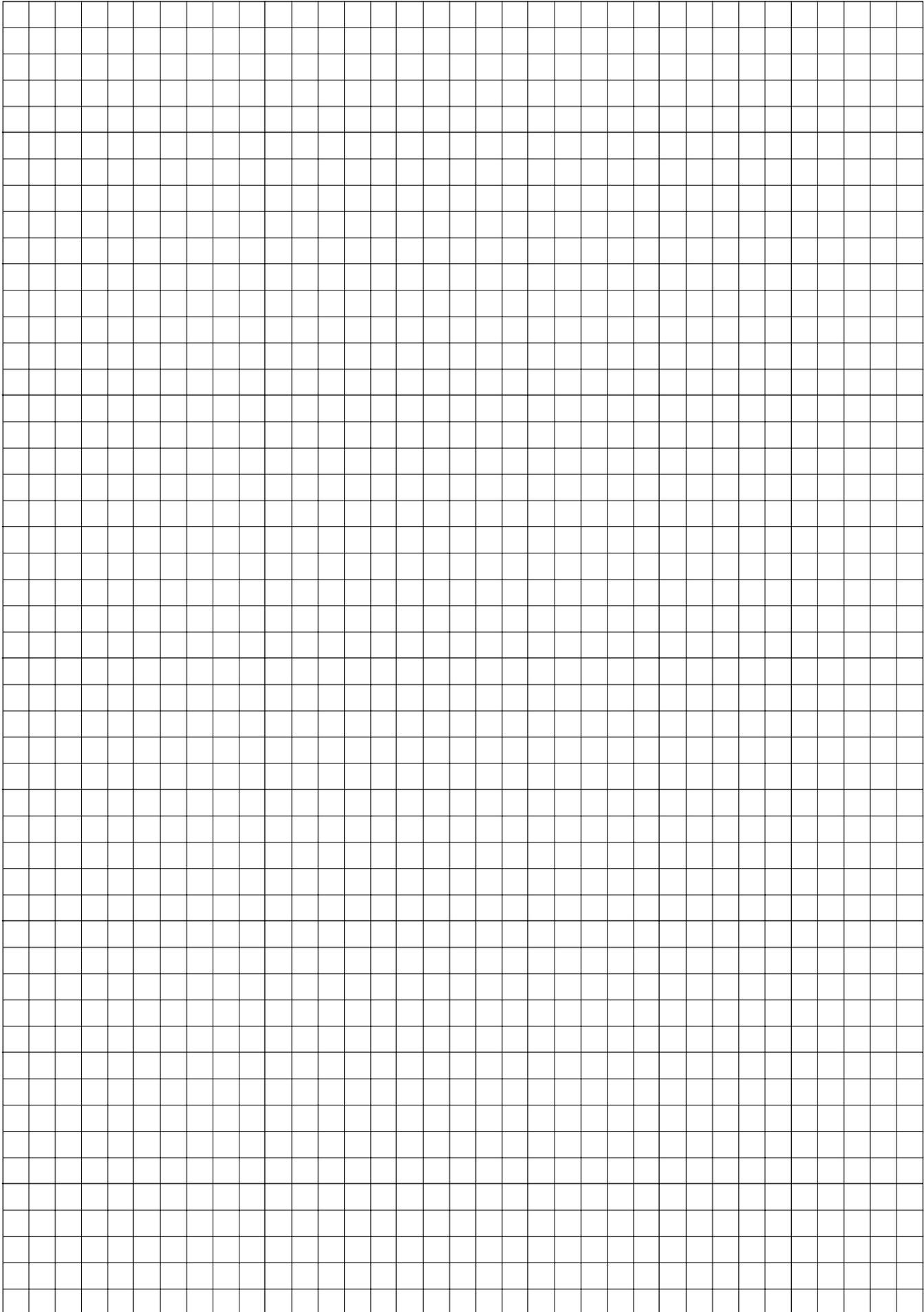
Scrap Graph Paper — This sheet will *not* be scored.

Tear Here

Tear Here



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



Tear Here

Tear Here

Tear Here

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

MATHEMATICS A

Friday, June 15, 2001 — 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

Tear Here

FOR TEACHERS ONLY

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

MATHEMATICS A

Friday, June 15, 2001 — 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 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 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) 1	(6) 1	(11) 3	(16) 4
(2) 1	(7) 4	(12) 4	(17) 1
(3) 3	(8) 4	(13) 2	(18) 2
(4) 3	(9) 3	(14) 1	(19) 1
(5) 2	(10) 2	(15) 4	(20) 3

Part II

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

- (21) [2] 60, and appropriate work is shown, such as $300 - 120 - 90 - 30 = 60$.
- or*
- [2] 60, and an appropriate Venn diagram to illustrate the answer is shown.
- [1] Appropriate work is shown, but one computational error is made.
- or*
- [1] An appropriate Venn diagram is drawn, and 240 is determined to be the total number of students given, but no further work is shown.
- or*
- [1] 60, but no work is shown.
- [0] 240 is not subtracted from 300 and is given as the solution.
- 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] 57° , and appropriate work is shown, such as determining that $m\angle FYD \cong m\angle BXY$ and $\angle AXY$ is supplementary to $\angle BXY$.
- or*
- [2] 57° , and a correctly labeled diagram with appropriate angles is shown.
- [1] $\angle CYX$ or $\angle BXY$ is determined, but one computational error is made in subtracting to find $m\angle AXY$.
- or*
- [1] An angle is determined incorrectly, but an appropriate solution is found.
- or*
- [1] 57° , 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*

- (23) [2] 42 nickels and 21 dimes, and appropriate work is shown, such as $0.1x + (0.05)2x = 4.20$ or a guess and a check with a minimum of two trials and appropriate checks or another appropriate method.
- [1] 42 nickels or 21 dimes, but appropriate work is shown.
- or**
- [1] Appropriate work is shown, but no answer or an incorrect answer is found.
- or**
- [1] 42 nickels and 21 dimes, 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.
- (24) [2] 45, and appropriate work is shown, such as a diagram or $\frac{1.2}{2} = \frac{x}{75}$.
- [1] Appropriate work is shown, but no answer or an incorrect answer is found.
- or**
- [1] 45, 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] 210, and appropriate work is shown, such as $7 \cdot 6 \cdot 5$ or ${}_7P_3$.
- [1] Appropriate work is shown, but no answer or an incorrect answer is found.
- or**
- [1] 210, 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.

- (26) [3] 102, and appropriate work is shown, such as using the equation $2x + 10 + 3x = 180$ or an equivalent equation.
- [2] The equation $2x + 10 + 3x = 180$ is solved correctly for x , but $m\angle B$ is not determined or is determined incorrectly.
- [1] Appropriate work is shown, but one computational error is made or x is not determined.

or

- [1] The equation $2x + 10 + 3x = 360$ is solved correctly, and an answer of 210 is found.

or

- [1] 102, but no work is shown.

- [0] The equation $2x + 10 = 3x$ where $x = 10$ is given.

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 – *continued*

- (27) [3] 1,095 and 1,209, and appropriate work is shown.
- [2] Appropriate work is shown, but one computational error is made.
- or***
- [2] Appropriate work is shown, but a whole-number solution is not found.
- or***
- [2] 5% of CD cases is rounded to 58, but 58 is added to or subtracted from 1,152 appropriately.
- or***
- [2] Appropriate work is shown, but only one correct solution is found.
- [1] Appropriate work is shown, but more than one computational error is made.
- or***
- [1] 5% of CD cases is rounded to 58, but 58 is added to or subtracted from 1,152, but one computational error is made.
- or***
- [1] 5% of 1,152 is found, but no further work is shown.
- or***
- [1] 1,095 and 1,209, 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*

(28) [3] A correct graph is shown, and an answer between -6° and -2° is found.

[2] A correct formula is used, and -4°C or an equivalent answer is found, but no graph is shown.

or

[2] An appropriate graph is shown, and the correct answer is marked, but it is stated incorrectly, such as 5°C instead of -5°C .

or

[2] An appropriate graph is shown, but answers outside the given range are found.

or

[2] The line graph passes through at least one correct point, and an appropriate answer is found.

[1] The formula is used correctly, but the answer is not in the range, and no graph is shown.

or

[1] An answer between -6° and -2° is found, but no graph is shown.

[0] A completely incorrect graph is shown.

or

[0] No graph is shown and the formula is used 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.

(29) [3] 78.5 square feet or 2π or an equivalent answer, and appropriate work is shown.

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

or

[2] Appropriate work is shown, but the measure of one side of the square is used as the radius of the circle.

or

[2] Appropriate work is shown, but the perimeter is used to find a side of the square.

[1] The correct length of the side of the square is shown, but further work is missing or is incorrect.

or

[1] The equation for the circumference of the circle instead of the equation for the area of the circle is solved appropriately.

or

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

or

[1] 78.5 square feet or 25π , 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] $\frac{7}{20}$ or an equivalent answer, and appropriate work is shown, such as $\frac{15}{25} \cdot \frac{14}{24}$ or $\frac{{}_{15}C_2}{{}_{25}C_2}$.

[2] $\frac{15}{25} \cdot \frac{14}{24}$ or $\frac{{}_{15}C_2}{{}_{25}C_2}$ is shown, but one computational error is made or no further work is shown.

or

[2] ${}_{15}C_2$ and ${}_{25}C_2$ are computed correctly, but no further work is shown.

or

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

[1] The correct probabilities are found, but they are added instead of multiplied.

or

[1] Only one of the two parts of the probability is correct.

or

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

or

[1] $\frac{7}{20}$ or an equivalent answer, 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] 3, 5, and 7, and appropriate work is shown, such as an appropriate quadratic equation or trial-and-error method.
- [3] An appropriate equation is written and solved, but one computational error is made.
- or*
- [3] An appropriate equation is written and solved, but the even solutions are also listed.
- [2] An incorrect quadratic equation is shown, but it is solved appropriately.
- or*
- [2] Integers are misrepresented, but the subsequent quadratic equation is solved appropriately.
- or*
- [2] An appropriate equation is written and solved, but more than one computational error is made.
- or*
- [2] The correct solution is given, but only one trial is shown with appropriate checks when a trial-and-error method is used.
- [1] A linear equation is solved appropriately.
- or*
- [1] 3, 5, and 7, 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*

- (32) [4] \$148.54, and appropriate work is shown.
- [3] The correct pre-tax amount of \$137.54 is found, but no tax or an incorrect tax is shown.
- or***
- [3] Appropriate work is shown, but one computational error is made.
- [2] The correct area of 46 ft² is found, but no cost is shown.
- or***
- [2] Appropriate work is shown, but more than one computational error is made.
- or***
- [2] An incorrect area is determined, such as by adding or multiplying all sides, but then a final cost including tax is determined appropriately.
- [1] An incorrect area is shown, and one computational error is made.
- or***
- [1] \$148.54, 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) [4] \$5 for the sprayer and \$10 for the generator, and appropriate work is shown, such as x = hourly cost of sprayer and y = hourly cost of generator, and an appropriate system of equations is solved or a trial-and-error method is used, showing at least two trials with appropriate checks.

[3] Both correct equations are shown or an appropriate chart or trial-and-error method is used, but one computational error is made.

or

[3] Both correct equations are shown, and they are solved for one value, but no further work is shown.

[2] Only one of the two equations is correct, but they are solved appropriately for both values.

or

[2] Both correct equations are shown, but more than one computational error is made.

or

[2] \$5 for the sprayer and \$10 for the generator, but only one trial is shown with appropriate checks.

[1] Both equations are incorrect, but they are solved appropriately for both values.

or

[1] Both correct equations are shown, but they are not solved.

or

[1] \$5 for the sprayer and \$10 for the generator, 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*

(34) [4] 260, and appropriate work is shown, such as applying the appropriate area formula, $A = \frac{1}{2}bh$ or $A = \frac{1}{2}h(b_1 + b_2)$, to find the length of \overline{AE} and using the Pythagorean theorem or stating the Pythagorean triple to determine AB .

[3] 300, because \overline{BE} is added to the perimeter.

or

[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] Only AB and AE are determined correctly.

[1] Only AB or AE is determined correctly.

or

[1] 260, 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] $S'(0,6)$, $U'(-3,5)$, $N'(-3,0)$, and the correct graphs of both triangles are shown.
- [3] The correct graphs of both triangles are shown, but the coordinates of $\triangle S'U'N'$ are not stated correctly.
- or**
- [3] $\triangle SUN$ is graphed and labeled correctly, and the coordinates of $\triangle S'U'N'$ are stated correctly but not graphed correctly.
- or**
- [3] The coordinates of $\triangle S'U'N'$ are graphed and stated correctly, but $\triangle SUN$ is not graphed or labeled.
- or**
- [3] $\triangle SUN$ is graphed incorrectly, but the graph and the coordinates of $\triangle S'U'N'$ are appropriate, based on that error.
- [2] $\triangle S'U'N'$ is graphed correctly, but the coordinates of $\triangle S'U'N'$ are not stated, and $\triangle SUN$ is not graphed.
- or**
- [2] $\triangle SUN$ is graphed and labeled correctly, but $\triangle S'U'N'$ is reflected in the x -axis, and the coordinates $S'(0,-6)$, $U'(3,-5)$, $N'(3,0)$ are stated.
- or**
- [2] $\triangle SUN$ is graphed incorrectly, but $\triangle S'U'N'$ is graphed appropriately, based on that error, but the coordinates of $\triangle S'U'N'$ are not stated.
- [1] $\triangle SUN$ is graphed and labeled correctly, but no other work or completely incorrect work for $\triangle S'U'N'$ is shown.
- or**
- [1] $\triangle S'U'N'$ is graphed correctly, but the coordinates of $\triangle S'U'N'$ are not stated, and $\triangle SUN$ is not graphed or is graphed incorrectly.
- or**
- [1] $S'(0,6)$, $U'(-3,5)$, $N'(-3,0)$, but no work or graph 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

Map to Learning Standards

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

Regents Examination in Mathematics A

June 2001

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

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.