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Office for Standards, Assessment and Reporting

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TO: District Superintendents
School Superintendents
Principals of Public and Nonpublic High Schools and Intermediate Schools
Mathematics Department Chairs and Coordinators
High School and Middle-Level Mathematics Teachers

FROM: David Abrams

SUBJECT: June 2008 Regents Examination in Integrated Algebra

The first administration of the new Regents Examination in Integrated Algebra will take place in June 2008. For this administration, schools will have the option of requesting and administering both Integrated Algebra and Mathematics A. This is the first step in the transition from Mathematics A and Mathematics B to Integrated Algebra, Geometry, and Algebra 2/Trigonometry that will take place over the next three years. A chart delineating the transition is attached to this memorandum. Each student should take only the examination for which he or she has been prepared by coursework.

The Regents Examination period for June 2008 will begin on Tuesday, June 17, and conclude with the Rating Day on Thursday, June 26. The Regents Examination in Integrated Algebra will be administered on the afternoon of June 17.

In late October 2007, the Office of State Assessment will provide schools with an Integrated Algebra Regents Examination Test Sampler. This Test Sampler will consist of examples of the types of questions, the formatting, and the scoring guides that are being developed for the examination. It may be duplicated for classroom instruction and can be accessed on the Department's web site at <http://www.emsc.nysed.gov/osa>.

The test specifications that the Regents Examination and the Test Sampler will follow are attached to this memorandum and are posted on the Department's web site at <http://www.emsc.nysed.gov/osa/mathre/testspecsalgebra.pdf>. Please note that graphing calculators are required for student use for this examination.

As is the case with all Regents Examinations, New York State teachers have been making, and will continue to make, essential contributions to all aspects of the test development process for Integrated Algebra. The Department's contractor for this examination, Riverside Publishing Company, works closely with Department staff and with committees of teachers from across New York State to develop examination questions that evaluate student attainment of the mathematics learning standard and the core curriculum in Integrated Algebra in particular.

Through our Call for Expertise on the Department's web site, **we encourage teachers to become involved in test development and standard-setting activities.** Please download and complete the Call for Expertise application found at:

<http://www.emsc.nysed.gov/ciai/call.htm>

In addition, all schools that administer the examination in June 2008 will be participating in the post-operational score collection for standard setting.

The score collection phase is a vital step in the test development and validation process. Prior to the Regents Examination period, the Department will provide answer sheets to all schools that request the Regents Examination in Integrated Algebra. These answer sheets will be produced by Pearson Educational Measurement (PEM), the Department's contractor for score collection and standard setting. These are the **only** answer sheets that can be used for this examination. The box containing the answer sheets will arrive in mid- to late May. Detailed directions for the use and submission of the Integrated Algebra answer sheets provided by PEM will be shipped along with the other nonsecure testing materials. The directions will also be posted on the Department's web site.

As part of the score collection, schools will be required to ship their scored answer sheets to Pearson Educational Measurement by the UPS pick-up time on the day following the scheduled administration of the examination. The box in which the answer sheets were shipped to the schools **must** be reused, and a pre-paid shipping label will be provided as well.

The conversion chart for determining each student's final examination scale score from the total raw score will be posted on the Department's web site no later than the Rating Day, Thursday, June 26.

For standard setting the new Regents Examination in Integrated Algebra, the Department will use the same processes that were used for standard setting the Grades 3–8 English Language Arts and Mathematics Tests. These standard-setting processes include:

- Conducting the standard setting after the examination has been administered using operational testing data;
- Implementing the Measurement Policy Review Forum;
- Standard setting using the Item Mapping Method with New York State general education and special population teachers;
- Validating the process and reviewing final results of standard setting with the Department's External Technical Advisory Group prior to submission of results to the Commissioner.

These processes reflect best practices and adhere to the *Joint Standards for Educational and Psychological Testing*.

Suggestions and feedback from teachers provide an important contribution to the test development process. The Department provides an online evaluation form for State assessments that contains spaces for teachers to respond to several specific questions and to make suggestions. This form is posted at <http://www.emsc.nysed.gov/osa/exameval>. The Regents Examination in Integrated Algebra will be added to this online form in June 2008 and teachers who administer this test are encouraged to submit an evaluation.

The Department has established an e-mail address dedicated solely to questions regarding the content of these new mathematics assessments and the transition from Mathematics A and Mathematics B to Integrated Algebra, Geometry, and Algebra 2/Trigonometry. Please use the e-mail address emscreminfo@mail.nysed.gov for the quickest response to your questions on these topics. Information regarding this new assessment will also be posted on the Department's web site at <http://www.emsc.nysed.gov/osa/new-math.htm> as it becomes available, so please check frequently in order to have the latest information.

Thank you for your help and for all the work you do on behalf of the students in New York State.

Attachments

Mathematics Regents Examinations Implementation / Transition Timeline

On December 8, 2005, the Board of Regents unanimously approved the Education Department's recommended implementation timeline for the Regents Examinations in Integrated Algebra, Geometry, and Algebra 2/Trigonometry.

	Mathematics A	Mathematics B	Algebra	Geometry	Algebra 2/ Trigonometry
2006-07	X	X			
2007-08	X	X	X First admin. in June 2008		
2008-09	X Last admin. in January 2009	X	X	X First admin. in June 2009	
2009-10		X Last admin. in June 2010	X	X	X First admin. in June 2010
2010-11			X	X	X
2011-12			X	X	X

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**Specifications for the Regents Examination in Integrated Algebra
(First Administration–June 2008)**

The questions on the Regents Examination in Integrated Algebra will assess both the content and the process strands of New York State Mathematics Standard 3. Each question will be aligned to one content performance indicator but will also be aligned to one or more process performance indicators, as appropriate for the concepts embodied in the task. As a result of the alignment to both content and process strands, the examination will assess students' conceptual understanding, procedural fluency, and problem-solving abilities rather than assessing knowledge of isolated skills and facts.

There will be 39 questions on the Regents Examination in Integrated Algebra. The table below shows the percentage of total credits that will be aligned with each content strand.

Content Strand	% of Total Credits
1) Number Sense and Operations	6–10%
2) Algebra	50–55%
3) Geometry	14–19%
4) Measurement	3–8%
5) Probability and Statistics	14–19%

Question Types

The Regents Examination in Integrated Algebra will include the following types and numbers of questions:

Question Type	Number of Questions
Multiple choice	30
2-credit open ended	3
3-credit open ended	3
4-credit open ended	3

Calculators

Schools must make a graphing calculator available for the exclusive use of each student while that student takes the Regents Examination in Integrated Algebra.

Reference Sheet

The Regents Examination in Integrated Algebra will include a reference sheet containing the formulas specified below.

Trigonometric Ratios	$\sin A = \frac{\textit{opposite}}{\textit{hypotenuse}}$
	$\cos A = \frac{\textit{adjacent}}{\textit{hypotenuse}}$
	$\tan A = \frac{\textit{opposite}}{\textit{adjacent}}$

Area	trapezoid	$A = \frac{1}{2}h(b_1+b_2)$
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Volume	cylinder	$V = \pi r^2 h$
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Surface Area	rectangular prism	$SA = 2lw + 2hw + 2lh$
	cylinder	$SA = 2\pi r^2 + 2\pi rh$

Coordinate Geometry	$m = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1}$
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