AMTNYS Curriculum Questions 2018

Q. Why are we creating more restrictions having a certification for computer science? Requiring another certification will create another shortage for finding teachers for computer science.

A. In April 2017, the Board was presented with information about the creation of a computer science certificate (see Related Regents Items). Currently, there is no computer science certificate in New York, and therefore there are no undergraduate or graduate computer science education preparation programs in New York State institutions of higher education. Stakeholders from the field have approached the Department to discuss the need for a computer science certificate. The item includes further details of the justification for the creation of the computer science certificate. Computer science Regents
item: http://www.regents.nysed.gov/common/regents/files/318hea2.pdf

Q. Why is the CS certification a K-12 cert rather than 7-12?

A. The Department recognized that computer science is a special subject that is taught across the grade levels, which is outlined in the K-12 Computer Science Framework (https://k12cs.org).

Q. Much of the research and even many of the workshops here emphasize the benefit of instruction based on engagement in Rich Tasks done collaboratively. However, this type of instruction takes a lot more time if its going to be meaningful.
How does NYSED reconcile its overly packed HS curricula with students' need to engage in deep problems/projects that take a lot of time? Has any thought been given to further paring down the HS curricula (especially Algebra II) to allow for more student driven investigations?

A. Seven grade band/course subcommittees (Prekindergarten-Grade 2, Grades 3-5, Grades 6-8, Algebra I, Algebra II, Geometry and Plus Standards) comprised of New York State P-12 classroom teachers, special education teachers, English language learner teachers, parents, curriculum specialists, school administrators and college professors discussed and made recommendations for possible revisions or additions to the NYS P-12 Common Core Learning Standards for Mathematics.
Through a series of all-day, in-person meetings as well as web meetings held over several months, review committees considered and discussed public comment as well as expert feedback from mathematical cognitive researchers and made any necessary modifications to these standards, resulting in the NYS Next Generation Mathematics Learning Standards that were adopted by the BOR, September 2017.
In reviewing the standards, the committees kept most of the standards and their content intact, however in some cases, narrowed the focus of some standards in order to allow for more time to develop conceptual understanding (student driven investigations) while maintaining the rigor and level of achievement in mathematics. For more information go to http://www.nysed.gov/next-generation-learning-standards and scroll down to Additional Resources.

Q. Can we get a K-6, 7-8, 9-12 one-page overview for standards at each grade level? Ex: Count to 10. Count to 20, etc.

A. The Standards document has a one-page overview for each grade level and high school courses. A source for the Next Generation Mathematics Learning Standards are the grade level/course snapshots which provide a condensed one-page summary that lists standards that were added to the grade/course, standards that were moved, and any instructional considerations that need to be highlighted based on new standard clarifications or language modification. The National PTA website also has an overview of each grade level.

Q. What grade levels will have videos for parents?

A. The parent videos will be an overview of the Next Generation Mathematics Learning Standards for grades P-12. They include examples of the changes that have been adopted.

Q. Why don't more NYS math teachers get an opportunity to input when state ed sets standards? Can there be more paths to having teachers more involved with setting standards?

A. Seven grade band/course subcommittees (Prekindergarten-Grade 2, Grades 3-5, Grades 6-8, Algebra I, Algebra II, Geometry and Plus Standards) comprised of New York State P-12 classroom teachers, special education teachers, English language learner teachers, parents, curriculum specialists, school administrators and college professors discussed and made recommendations for possible revisions or additions to the NYS P-12 Common Core Learning Standards for Mathematics.
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Q. The geometry curriculum mentions dynamic geometry software as a means to develop student understanding. Ruler and compass constructions are also integrated with that goal. Ruler and compass constructions do not appear to be furthering that goal, at least not for our average students. Even highly successful college math majors will not know how to perform many of the constructions we cover after graduating college. Why do we still require these?

A. Geometric constructions are a means to further develop understanding of congruence. This leads to a deeper understanding of proof. Just as axioms and postulates are used to prove everything with a minimum of assumptions, a compass and straightedge are used to construct

everything precisely with a minimum of tools. The skills needed to figure out how to construct a square without a protractor, are closely related to the thinking skills needed to prove theorems about squares.

AMTNYS Assessment Questions 2018

Q. Have the pre & post topics been established for Math 8?

A. NYSED is continuing to gather feedback from NYS mathematics educators on the pre/post sequencing of the Grades 3-8 Mathematics Next Generation Standards and we expect to provide the final determinations prior to the end of this current school year.

Q. Two-day testing in 2020 for P-12: field testing? What does this mean?

A. The Grades 3-8 Math Tests will consist of two sessions in both 2019 and 2020. We expect field testing in these years to be similar to prior administrations.

Q. When will tracing paper/patty paper be allowed on the Geometry Regents for Rigid Motion questions?

A. Tracing paper – patty paper is not on the list of approved tools for students to use on the Geometry Regents Exam. Tracing paper – patty paper is a classroom tool that can be used to demonstrate to students the concepts of rigid motions, congruence, and rotational symmetry. On the Regents Exam, a student needs to be able to demonstrate their understanding of these concepts without the use of the tracing paper and patty paper tools.

Q. Is there an official update on when the "new" high school Regents exams (addressing NGSS standards) will be administered? Will there be a phase-in over a three-year period or will all three new exams be given in the same year?

A. As presented at the AMTNYS meeting, the tentative schedule is for the new Regents Examinations in mathematics to be phased in beginning in June 2022 with Algebra I, followed by Geometry in June 2023, and Algebra II in June 2024. Note that these dates are tentative, and the Department is currently soliciting educator feedback on this tentative implementation timeline. The final timeline for the phase in of these new examinations will most likely be disseminated by the end of this current school year.

Q. With the Next Generation Standards on the horizon, will we be redoing our reference sheet for the regents exams? More specifically, will there be one reference sheet for each exam again instead of a one size fits all reference sheet.

A. Feedback on this topic was gathered at the AMTNYS meeting. The Department continues to gather educator feedback on reference sheets for both the Grades 3-8 Math Tests and the Regents Exams.

Q. Are there pre-requisites for sitting for a Regents Assessment? Our District is now saying that anyone can sit for any of the math Regents even though they have not taken any course work preparing them for that Regents. For example: a student completed Algebra 1 and Geometry and passed the associated Regents but is now taking BOCES for their third math credit -- this student was allowed to sit for the Algebra 2 Regents over the summer in the hopes of passing it and earning an Advanced Regents Diploma.

A. Please see the Admission Requirements section on page 1-4 of the *School Administrator's Manual for Secondary Level Examinations*.

Q. For the 7th grade math assessment this year, will they still be allowed to use the calculators for both Book 1 and Book 2 as they did last year?

A. Yes. The 2019 Grades 3-8 Math Tests will follow the same administration policies as 2018. Grades 7 and 8 students will be allowed to use calculators for both sessions of the test.

Q. Flow Chart Proofs: We need more student samples and teacher guidance for grading. Proof questions tend not to have a wide variety of student samples for teachers to view.

A. Flow chart proofs are rarely used by students to respond to constructed-response questions on field tests and, therefore, are often not available to the Department to include in the Model Response Set for scoring Regents Exams. This concern will be brought to the attention of the teachers who review the Model Response Set and, when feasible, may be included in future Model Response Sets.

Q. Will there ever be a calculator and non-calculator section of the algebra 1 and algebra 2 exams?

A. No decisions have been made regarding the Regents Examinations measuring the Next Generation Learning Standards. The development of these tests will be led by NYS educators who will advise the Department on how to best measure the Learning Standards within each course.

Q. Current curves on CC Alg 1 and Alg 2 can be overly generous for under-performing students and harsh for higher students. Can the exam be created to be fairer and more consistent overall?

A. As with all state testing programs, Regents Exams are constructed using a class of statistical models called item response theory (IRT). A student's final exam score on any Regents Examination is not a simple percentage or number of correct answers; nor is it the same as the raw score (i.e., the total number of credits a student earns on the test). With IRT, a scale score depends on the overall difficulty of the questions on the test and not just on the number of questions the student answers correctly. The raw score-to-scale score conversion chart provides the

transformation from the number of credits earned (i.e., the raw score) in relation to the overall difficulty of questions on the exam to the final scale score. Differences in scale scores represent differences in knowledge and skills in the content area, not a "curve" or other moderation.
New York State teachers participate in every step of test development for the Regents Exams. All questions are written by NYS teachers who are certified in the content area of the specific Regents Exam they are working on. Questions are then subjected to multiple rounds of review by additional certified educators. The questions are field tested with thousands of New York State students and statistics from these field tests are evaluated to ensure that the questions meet criteria for use on the Regents Exam. Questions are ultimately selected for the Regents Exam by NYS educators based on content coverage and psychometric properties. Care is taken to include a variety of questions so that the examination provides information on different levels of student achievement. Throughout the entire development process, NYS teachers who are certified in the content area of each Regents Exam take the lead role in developing and selecting the questions that appear on the exam.

Q. When are sample Regents questions for the Next Gen exams scheduled to be released? Will there be examples for each indicator?

A. At this time, there is no timeline for sample questions for Regents Examinations measuring the Next Generation Learning Standards.