SUMMARY OF PROPOSED CHANGES TO NY STATE COMMON CORE H.S. STANDARDS (2016)

This list summarizes many of the important changes proposed in 2016 by the New York State Mathematics Standards Review Committee for the Common Core High School Standards. Not all changes are included here. Here, "add" means the standard was added to a course from another course or is new. "Remove" means the standard is no longer taught in a Regents-level math course. For a complete list of proposed changes, justifications, and other details, see the New York State Education Department's Aim High NY web site.

ALGEBRA I

+ (N-RN.B.3) ADD: Generate equivalent forms of rational and irrational numbers (i.e. operations with radicals?) w/o rationalizing denominators
➢ (A-SSE.3a) MOVE: Factor quadratic trinomials with leading coefficients > 1 (after GCF removed) moved to Algebra II
– (A-SSE.3b) REMOVE: Completing the square in quadratic expression to reveal maximum or minimum value
– (A-APR.A.1) REMOVE: Closure of operations with polynomials
– (A-REI.B.4) REMOVE: Derivation of quadratic formula
+ (A-REI.C.7a) ADD: Solve quadratic-linear system (parabolas only)
➢ (F-IF.A.3) MOVE: Functional notation for sequences and recursive forms moved to Algebra II
➢ (F-BF.A.1a) MOVE: Recursive sequences moved to Algebra II
➢ (F-BF.B.3) MOVE: $f(kx)$ transformation moved to Algebra II
– (S-ID.B.6) REMOVE: Plot and analyze residuals

GEOMETRY

+ (G-CO.A.3) ADD: Describe rotations and reflections that carry irregular (not just regular) polygon onto itself
+ (G-CO.A.4) ADD: Define center point of rotation
• (G-CO.C.9) SPECIFY: Specifies angle theorems: vertical angles, parallel lines & transversal, perpendicular bisector
• (G-CO.C.10) SPECIFY: Specifies triangle theorems: interior angle sum, exterior angle sum, Exterior Angle Theorem, isosceles triangles, midsegment of triangle
• (G-CO.C.11) SPECIFY: Specifies parallelogram theorems: properties of parallelograms and special parallelograms
• (G-CO.D.12) SPECIFY: Specifies constructions: copy segments and angles, bisect segments and angles, perpendicular lines, parallel lines, isosceles triangle, points of concurrency in triangle
+ (G-SRT.D.9) ADD: Apply area of triangle $K = (1/2)\ ab \sin C$ formula
+ (G-SRT.D.10, G-SRT.D.11) ADD: Apply Laws of Sines and Cosines (NOT ambiguous case, NOT force problems)
+ (G-F.TF.A.3) ADD: Find exact values of special angles (30, 45, 60, 120, 135, 150 degrees) in degrees using unit circle
• (G-C.A.2) SPECIFY: Specifies circle theorems: central, inscribed, circumscribed angles and arcs; angles and arcs formed by intersecting chords, tangents, secants; radii, chord, tangent, secant segments
+ (G-C.A.4) ADD: Construct tangent line from point outside circle to circle
– (G.C.B.5) REMOVE: Find central angle, arc length, radius, area of sector in terms of radians (Geometry will use degrees only)
– (G-GMD.A.1) REMOVE: Prove formulas for circumference, area, volume; use Cavalieri's Principle
+ (G-GMD.B.4) ADD: Plane sections do not have to be parallel or perpendicular to base

ALGEBRA II

+ (A-SSE.3a) ADD: Factor quadratic trinomials with leading coefficients > 1 (after GCF removed) (was in Alg. I)
– (A-APR.C.4) REMOVE: Use polynomial identities to describe numerical relationships (proofs of identities remains)
• (A-APR.D.6) CLARIFY: Long division of polynomials and using a computer algebra system to divide polynomials (dividing polynomials is still required but using a specific method like long division is no longer required)
– (A-REI.C.6) REMOVE: Solve systems of three equations in three variables
• (A-REI.C.7) SPECIFY: Solve quadratic-linear systems with circles
+ (F-IF.A.3) ADD: Functional notation for sequences and recursive forms (was in Alg. I)
• (F-IF.C.8b) SPECIFY: Exponential growth includes compound and continuous interest
+ (F-BF.A.1a) ADD: Includes recursive functions (was in Alg. I)
+ (F-BF.B.3) ADD: $f(kx)$ transformation (was in Alg. I)
+ (F-BF.B.5a) ADD: Understand inverse relationship between exponents and logarithms
+ (F-BF.B.6) ADD: Convert between, evaluate, write expanded form and summation notation
+ (F-LE.A.4) ADD: Solve $ab^{ct} = d$ for t, where base b is a real number (was limited to 2, 10, e)
+ (F-TF.A.4) ADD: Use unit circle to explain symmetry (odd/even) and periodicity of trigonometric functions
+ (F-TF.C.8) ADD: Find value of 6 trigonometric functions given value of one trigonometric function value
– (G-GPE.A.2) REMOVE: Derive equation of parabola given focus and directrix
• PROBABILITY AND STATISTICS STANDARDS CLARIFIED:
  - (S-ID.A.4) Use the normal distribution to estimate population percentages, estimate areas under normal curve
  - (S-ID.B.6) Create scatterplots
  - (S-ID.B6a) Fit linear, quadratic, exponential functions to data
  - (S-IC.A.1, S-IC.A.2, S-IC.B.5) Determine if a statistic is likely to occur based on a given simulation
  - (S-IC.B.3) Understand uses of, differences between, and relationship of randomization to sample surveys, experiments, observational studies.
  - (S-IC.B.4) Given simulation model based on sample, construct 95% interval centered on mean; determine if suggested parameter is plausible
  - (S-IC.B.6) Use statistical language to draw conclusions from numerical summaries and critique claims
  - (S-CP.A.1) Describe events as subsets of sample space or unions, complements, intersections of other events
  - (S-CP.A.2) Determine if events are independent
  - (S-CP.A.3, S-CP.B.6) Calculate and interpret conditional probability
  - (S-CP.A.4) Construct and interpret two-way tables, use them to determine if events are independent
  - (S-CP.B.7) Use Addition Rule

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