NOVEMBER 2026 / JANUARY 2027 PLANNING

Algebra II atlas

Standards, score design, seasonal evidence, public stimuli, scored work and original transfer tasks.

Fri Jan 29 · 9:15 a.m. | Official January 2027 schedule

January forms	June forms	August forms	Printed slots
0	1	1	72

What the available design supports

36 questions and 82 credits. Parts I–IV contribute 48, 16, 12 and 6. Functions occupy 38–45% of credits, algebra 30–39%, statistics/probability 14–22%, and number/quantity 4–8%.

June and August 2026 had exactly the same broad distribution of credits. Each final task used an applied function, asked for average rate of change with interpretation and included a threshold. The models differed: lung capacity was periodic; tea temperature decayed exponentially.

January 2027 is the first January under this design. Two repeated response demands warrant practice; they provide little information about the next specific function family.

NYSED course guide / administration authority

A useful preparation decision

Select a recurring evidence demand, compare the official scoring criterion with a response, then change context for an independent check. The six new topic cards below broaden practice. Their contexts are original designs, and their exact future appearance has no estimated probability.

Topic	Original card
Exponential and logarithmic models	ALG2-N01 A changing coolant temperature
Periodic functions	ALG2-N02 A platform that repeats
Probability	ALG2-N03 Exactly one inspection failure
Inference and study design	ALG2-N04 A randomized tutoring comparison
Rational expressions	ALG2-N05 A canceled factor
Distribution and model choice	ALG2-N06 A mean that hides a mixture

Blueprint and score contribution

Component	Range or maximum	Unit
Number and Quantity	4.0 to 8.0	percent of test
Algebra	30.0 to 39.0	percent of test
Functions	38.0 to 45.0	percent of test
Statistics and Probability	14.0 to 22.0	percent of test
Selected response	48.0 to 48.0	credits
Short constructed response	16.0 to 16.0	credits
Extended constructed response	12.0 to 12.0	credits
Modeling/extended response	6.0 to 6.0	credits

Inherited NYSED guide snapshot. Consult the current linked guide before operational use. Ranges describe blueprint constraints. Distinct units and weighting rules must be retained.

Observed maximum-credit shares

Category	Forms	Mean %	Observed range %
A	2	31.7	31.7-31.7
F	2	43.9	43.9-43.9
N	2	7.3	7.3-7.3
S	2	17.1	17.1-17.1

One entry per domain and form. The unit is maximum raw credits. Form-specific category shares can be reproduced from the retained table.

Preserve the scoring interpretation

A local response criterion supports feedback about that task. A shortened exam or modified full-length assembly lacks the state form's validated conversion. Report separate evidence for independent and prompted work. Preserve item weights when describing coverage.

Code ledger and form prevalence

Each row reports forms with at least one valid matching slot. A count such as 1/2 is a form prevalence, not student accuracy. Codes are retained at their actual mapping granularity. ELA writing tasks carry broad mappings and are excluded from this frequency ledger.

Published code / label	Jan	June	Aug	All
A-APR.B Connect zeros and factors	0/0	1/1	1/1	2/2
A-APR.D Rewrite rational expressions	0/0	1/1	1/1	2/2
A-CED.A Build equations and constraints	0/0	1/1	1/1	2/2
A-REI.A Justify equation-solving steps	0/0	1/1	1/1	2/2
A-REI.B Solve one-variable equations and inequalities	0/0	1/1	1/1	2/2
A-REI.C Solve systems	0/0	1/1	1/1	2/2
A-REI.D Represent solutions graphically	0/0	1/1	1/1	2/2
A-SSE.A Interpret expression structure	0/0	1/1	1/1	2/2
A-SSE.B Rewrite expressions to reveal properties	0/0	1/1	1/1	2/2
F-BF.A Build a function model	0/0	1/1	1/1	2/2
F-BF.B Transform or combine familiar functions	0/0	1/1	1/1	2/2
F-IF.A Function notation and evaluation	0/0	1/1	1/1	2/2
F-IF.B Interpret functions in context	0/0	1/1	1/1	2/2
F-IF.C Analyze functions using representations	0/0	1/1	0/1	1/2
F-LE.A Compare linear and exponential models	0/0	1/1	1/1	2/2
F-LE.B Interpret model parameters	0/0	1/1	0/1	1/2

Published code / label	Jan	June	Aug	All
F-TF.A Unit circle and trigonometric functions	0/0	1/1	1/1	2/2
F-TF.B Model periodic behavior	0/0	0/1	1/1	1/2
F-TF.C Prove or use identities	0/0	1/1	1/1	2/2
N-CN.A Arithmetic with complex numbers	0/0	1/1	1/1	2/2
N-RN.A Rational exponents	0/0	1/1	1/1	2/2
S-CP.A Independence and conditional probability	0/0	1/1	1/1	2/2
S-CP.B Calculate compound probabilities	0/0	0/1	1/1	1/2
S-IC.A Reason about random processes	0/0	0/1	1/1	1/2
S-IC.B Make and justify statistical inferences	0/0	1/1	1/1	2/2
S-ID.A One-variable distributions	0/0	1/1	1/1	2/2
S-ID.B Two-variable data	0/0	1/1	0/1	1/2

Zero observed January forms provide no winter rate. Multiple codes can describe the same slot. Labels are short teaching descriptions, and official code wording and its boundary remain authoritative.

Topics, trend and stimulus hypotheses

Exponential and logarithmic models

F-IF.B; F-LE.B
January 0/0 | June 1/1 | August 1/1

Pooled planning probability 75.0% for a union of named codes in 2/2 forms. Nominal observed-prevalence interval 34%-100%. Union of named official codes on valid printed scoring slots in fully mapped target forms.

Design hypothesis threshold model using charging curves. Preserve the target relationship and change the setting.

Periodic functions

F-TF.B
January 0/0 | June 0/1 | August 1/1

Pooled planning probability 50.0% for a union of named codes in 1/2 forms. Nominal observed-prevalence interval 9%-91%. Union of named official codes on valid printed scoring slots in fully mapped target forms.

Design hypothesis sinusoidal model using wheel height. Preserve the target relationship and change the setting.

Probability

S-CP.A; S-CP.B
January 0/0 | June 1/1 | August 1/1

Pooled planning probability 75.0% for a union of named codes in 2/2 forms. Nominal observed-prevalence interval 34%-100%. Union of named official codes on valid printed scoring slots in fully mapped target forms.

Design hypothesis event comparison using package defects. Preserve the target relationship and change the setting.

Inference and study design

S-IC.A; S-IC.B
January 0/0 | June 1/1 | August 1/1

Pooled planning probability 75.0% for a union of named codes in 2/2 forms. Nominal observed-prevalence interval 34%-100%. Union of named official codes on valid printed scoring slots in fully mapped target forms.

Design hypothesis simulation result using study method trial. Preserve the target relationship and change the setting.

Rational expressions

A-APR.D
January 0/0 | June 1/1 | August 1/1

Pooled planning probability 75.0% for a union of named codes in 2/2 forms. Nominal observed-prevalence interval 34%-100%. Union of named official codes on valid printed scoring slots in fully mapped target forms.

Design hypothesis domain and equivalence using average rate formula. Preserve the target relationship and change the setting.

Distribution and model choice

S-ID.A
January 0/0 | June 1/1 | August 1/1

Pooled planning probability 75.0% for a union of named codes in 2/2 forms. Nominal observed-prevalence interval 34%-100%. Union of named official codes on valid printed scoring slots in fully mapped target forms.

Design hypothesis two subgroup summaries using mixed shift durations. Preserve the target relationship and change the setting.

The contexts are possible practice stimuli. Their probabilities are unestimated. The quantitative estimates apply only to the named mapped-code event. Rows overlap and are not additive.

Observed public stimuli by topic

ALG2_2026_08 tea cooling over time

math final written task interpret a function model | exponential model + threshold + average rate

Open public task

ALG2_2026_06 lung capacity over time

math final written task interpret a function model | sinusoidal graph + threshold + average rate

Open public task

A source-set overlap with a code is broader than a one-to-one match between the format and the entire expectation. The full CSV retains all observed sets and joins.

Released item exemplars and mappings

Exponential and logarithmic models / ALG2-N01

Practice evidence T(0)=100; the long-run level is 20 degrees.

ALG2_2026_08_36 public question

Official published mapping

Verification route live map row match

Periodic functions / ALG2-N02

Practice evidence Amplitude 3 m, midline 7 m, period 12 s.

ALG2_2026_08_34 public question

Official published mapping

Verification route live map row match

Probability / ALG2-N03

Practice evidence 0.2(0.8)+0.8(0.2)=0.32.

ALG2_2026_08_13 public question

Official published mapping

Verification route live map row match

Inference and study design / ALG2-N04

Practice evidence 8/200=0.04. The estimate has Monte Carlo variation.

ALG2_2026_08_35 public question

Official published mapping

Verification route live map row match

Rational expressions / ALG2-N05

Practice evidence f requires x!=3.

ALG2_2026_08_33 public question

Official published mapping

Verification route live map row match

Distribution and model choice / ALG2-N06

Practice evidence The combined mean is 30 minutes for equal subgroup counts.

ALG2_2026_08_17 public question

Official published mapping

Verification route live map row match

The connection is a shared published code. Compare the complete tasks before treating them as equivalent practice.

Interpret a rate in context

ALG2_2026_06 Q36 | Published result 5/6

Observed evidence

A high-credit response still lost precision in its explanation because it omitted the physical context. The task models lung capacity.

Possible interpretation

A student may calculate a rate and omit the quantities, direction or time interval it describes.

Diagnostic prompt

What changes, per unit of what, over which interval in this model?

Teaching move

Keep the quotient, then write an interpretation naming the measured quantity, its units and the interval.

Public task

Sample or criterion

Commentary

Higher comparison anchor

Official mapping

This is a selected released example or criterion. Local student work was not supplied. Preserve alternate explanations until a new response distinguishes them.

Connect a cycle to its parameter

ALG2_2026_08 Q34 | Published result 2/4

Observed evidence

The response gave an incorrect period and an incorrect value of the associated function parameter B.

Possible interpretation

A horizontal distance between unlike points may have been read as a full cycle. A parameter slip is also possible.

Diagnostic prompt

Point to two consecutive matching phases. How does their separation determine B in radians?

Teaching move

Mark two successive peaks, calculate their horizontal distance and substitute into B = 2π/period.

Public task

Sample or criterion

Commentary

Higher comparison anchor

Official mapping

This is a selected released example or criterion. Local student work was not supplied. Preserve alternate explanations until a new response distinguishes them.

Separate interpretation from precision

ALG2_2026_08 Q36 | Published result 4/6

Observed evidence

The commentary identifies two distinct issues: an incomplete interpretation and early rounding in the final calculation.

Possible interpretation

A response can have both an explanation gap and a calculator-precision issue. One does not establish the other.

Diagnostic prompt

Repeat the threshold calculation with stored precision. Now explain the earlier rate without changing its numerical value.

Teaching move

Give separate feedback on the interpretation and the calculation. Recheck each with a new function family.

Public task

Sample or criterion

Commentary

Higher comparison anchor

Official mapping

This is a selected released example or criterion. Local student work was not supplied. Preserve alternate explanations until a new response distinguishes them.

Six original contexts and the prep route

Card	Target relationship	Transfer condition
ALG2-N01 A changing coolant temperature	Explain the initial temperature and long-run level.	Change the recording interval to two minutes and identify the first observed crossing.
ALG2-N02 A platform that repeats	Find amplitude, midline and period.	Write a model with the same extrema but double the period.
ALG2-N03 Exactly one inspection failure	Find the probability that exactly one fails.	If failures share an electrical supply, identify the additional joint information needed.
ALG2-N04 A randomized tutoring comparison	Estimate the two-sided simulation tail proportion.	Replace random assignment with students choosing their method. Revise the permissible inference.
ALG2-N05 A canceled factor	State the domain restriction on f.	Represent the distinction with a graph and a marked point.
ALG2-N06 A mean that hides a mixture	Find the combined mean.	Make express jobs three times as common and revise the weighted mean and interpretation.

Retained three-week Studio sequence

Week 1 session 1 Explain an interval rate

Week 1 session 2 Read a periodic pattern

Week 2 session 3 Solve an exponential threshold

Week 2 session 4 Keep the domain after canceling

Week 3 session 5 What a simulation supports

Week 3 session 6 Transfer the rate to a new family

The practice folder contains the prior standalone original exam, Form B rehearsal insert and directions, exam guide, six-session student prep and worked responses. Separate new stimulus student and teacher books add these six contexts. Use the full-length public booklet links in the assembly map.

Connections and department decisions

ALG2-N01 A changing coolant temperature

Reporting 4.396 as the first whole-minute reading. This is a diagnostic hypothesis. Ask the learner to explain the step before selecting a response.

Related reasoning ALG1-N01 Charging the battery cart, ALG1-N03 Two receipt checks

ALG2-N02 A platform that repeats

Using the sine coefficient as period or treating radians as complete cycles. This is a diagnostic hypothesis. Ask the learner to explain the step before selecting a response.

Related reasoning ALG1-N02 Raised garden arch, GEO-N06 Which transformations undo each other?

ALG2-N03 Exactly one inspection failure

Confusing disjoint cases with independent events. This is a diagnostic hypothesis. Ask the learner to explain the step before selecting a response.

Related reasoning ALG1-N04 Same center, different repair times, ALG1-N06 Measuring foam panels

ALG2-N04 A randomized tutoring comparison

Treating a tail proportion as the probability the null hypothesis is true. This is a diagnostic hypothesis. Ask the learner to explain the step before selecting a response.

Related reasoning GLOBAL2-N02 Mechanization and the household, GLOBAL2-N04 Peace after war

ALG2-N05 A canceled factor

Treating a canceled denominator as permission to restore an excluded input. This is a diagnostic hypothesis. Ask the learner to explain the step before selecting a response.

Related reasoning ALG1-N01 Charging the battery cart, ALG1-N03 Two receipt checks

ALG2-N06 A mean that hides a mixture

Assuming a calculated mean establishes a bell-shaped distribution. This is a diagnostic hypothesis. Ask the learner to explain the step before selecting a response.

Related reasoning ALG1-N04 Same center, different repair times, ALG1-N06 Measuring foam panels

Use the anonymous calibration record to preserve the initial judgments, criterion evidence, an instructional move and a new independent response. Review the same reasoning in a changed context and record prior exposure.