NOVEMBER 2026 / JANUARY 2027 PLANNING

Algebra I atlas

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

Wed Jan 27 · 1:15 p.m. | Official January 2027 schedule

January forms	June forms	August forms	Printed slots
2	3	3	280

What the available design supports

24 multiple-choice questions and 11 written responses contribute 48 and 34 of 82 raw credits. The blueprint assigns 48–61% of credits to algebra, 24–32% to functions, 7–15% to statistics and probability, and 4–10% to number and quantity.

Every current Q35 asked for a two-variable system. Seven used equations and one used inequalities. Three required a graph. Four asked students to check someone’s proposed prices and solve algebraically. In January 2025 students graphed and interpreted an intersection. In January 2026 they checked a claim and solved.

Only two comparable January forms. A systems-only review leaves 76 of 82 possible credits outside that single six-credit task. Rotate function interpretation, equations, statistics and number skills through the same week.

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
Linear models	ALG1-N01 Charging the battery cart
Quadratic structure	ALG1-N02 Raised garden arch
Systems and constraints	ALG1-N03 Two receipt checks
Statistics	ALG1-N04 Same center, different repair times
Growth and functions	ALG1-N05 Labels on an exponential model
Quantities and precision	ALG1-N06 Measuring foam panels

Blueprint and score contribution

Component	Range or maximum	Unit
Number and Quantity	4.0 to 10.0	percent of test
Algebra	48.0 to 61.0	percent of test
Functions	24.0 to 32.0	percent of test
Statistics and Probability	7.0 to 15.0	percent of test
Selected response	48.0 to 48.0	credits
Short constructed response	12.0 to 12.0	credits
Extended constructed response	16.0 to 16.0	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	8	54.3	51.2-58.5
F	8	27.4	24.4-29.3
N	8	7.3	4.9-9.8
S	8	11.0	7.3-12.2

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.A Polynomial operations	2/2	3/3	3/3	8/8
A-APR.B Connect zeros and factors	0/2	2/3	3/3	5/8
A-CED.A Build equations and constraints	2/2	3/3	3/3	8/8
A-REI.A Justify equation-solving steps	2/2	2/3	3/3	7/8
A-REI.B Solve one-variable equations and inequalities	2/2	3/3	3/3	8/8
A-REI.C Solve systems	2/2	3/3	3/3	8/8
A-REI.D Represent solutions graphically	2/2	3/3	3/3	8/8
A-SSE.A Interpret expression structure	2/2	3/3	3/3	8/8
A-SSE.B Rewrite expressions to reveal properties	2/2	3/3	3/3	8/8
F-BF.B Transform or combine familiar functions	2/2	3/3	3/3	8/8
F-IF.A Function notation and evaluation	2/2	3/3	3/3	8/8
F-IF.B Interpret functions in context	2/2	3/3	3/3	8/8
F-IF.C Analyze functions using representations	2/2	3/3	3/3	8/8
F-LE.A Compare linear and exponential models	2/2	3/3	3/3	8/8
F-LE.B Interpret model parameters	2/2	2/3	1/3	5/8
N-Q.A Choose quantities and units	2/2	3/3	3/3	8/8

Published code / label	Jan	June	Aug	All
N-RN.B Properties of rational and irrational numbers	2/2	3/3	3/3	8/8
S-ID.A One-variable distributions	2/2	3/3	3/3	8/8
S-ID.B Two-variable data	2/2	3/3	3/3	8/8
S-ID.C Interpret linear models	2/2	3/3	3/3	8/8

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

Linear models

A-CED.A; F-IF.B
January 2/2 | June 3/3 | August 3/3

Pooled planning probability 90.0% for a union of named codes in 8/8 forms. Nominal observed-prevalence interval 68%-100%. Union of named official codes on valid printed scoring slots in fully mapped target forms.

Design hypothesis cost comparison using equipment delivery bills. Preserve the target relationship and change the setting.

Quadratic structure

A-APR.B; F-IF.C
January 2/2 | June 3/3 | August 3/3

Pooled planning probability 90.0% for a union of named codes in 8/8 forms. Nominal observed-prevalence interval 68%-100%. Union of named official codes on valid printed scoring slots in fully mapped target forms.

Design hypothesis equation and interval using bridge clearance. Preserve the target relationship and change the setting.

Systems and constraints

A-CED.A; A-REI.C
January 2/2 | June 3/3 | August 3/3

Pooled planning probability 90.0% for a union of named codes in 8/8 forms. Nominal observed-prevalence interval 68%-100%. Union of named official codes on valid printed scoring slots in fully mapped target forms.

Design hypothesis paired receipts using ticket bundles. Preserve the target relationship and change the setting.

Statistics

S-ID.A
January 2/2 | June 3/3 | August 3/3

Pooled planning probability 90.0% for a union of named codes in 8/8 forms. Nominal observed-prevalence interval 68%-100%. Union of named official codes on valid printed scoring slots in fully mapped target forms.

Design hypothesis two distributions using attendance intervals. Preserve the target relationship and change the setting.

Growth and functions

F-LE.A; F-LE.B
January 2/2 | June 3/3 | August 3/3

Pooled planning probability 90.0% for a union of named codes in 8/8 forms. Nominal observed-prevalence interval 68%-100%. Union of named official codes on valid printed scoring slots in fully mapped target forms.

Design hypothesis model comparison using battery retention. Preserve the target relationship and change the setting.

Quantities and precision

N-Q.A; A-CED.A
January 2/2 | June 3/3 | August 3/3

Pooled planning probability 90.0% for a union of named codes in 8/8 forms. Nominal observed-prevalence interval 68%-100%. Union of named official codes on valid printed scoring slots in fully mapped target forms.

Design hypothesis unit conversion using wall insulation. 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

ALG1_2026_08 breakfast prices

math final written task system of equations | algebraic solution + check claim

Open public task

ALG1_2026_06 clothing prices

math final written task system of equations | graph + interpret intersection

Open public task

ALG1_2026_01 athletic shoe prices

math final written task system of equations | algebraic solution + check claim

Open public task

ALG1_2025_08 concession quantities

math final written task system of equations | algebraic solution + extra constraint

Open public task

ALG1_2025_06 work hours and pay

math final written task system of inequalities | graph + justify feasible point

Open public task

ALG1_2025_01 party supply quantities

math final written task system of equations | graph + interpret intersection

Open public task

ALG1_2024_08 movie ticket prices

math final written task system of equations | algebraic solution + check claim

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

Linear models / ALG1-N01

Practice evidence A(h)=18+4h and B(h)=7h. Equal at h=6, cost $42.

ALG1_2026_08_35 public question

Official published mapping

Verification route live map row match

Quadratic structure / ALG1-N02

Practice evidence h=x(10-x), so contacts are 0 and 10; vertex (5,25).

ALG1_2026_08_15 public question

Official published mapping

Verification route live map row match

Systems and constraints / ALG1-N03

Practice evidence 2(8)+3(3)=25 works, but 4(8)+3=35 also works. The proposal satisfies both constraints.

ALG1_2026_08_35 public question

Official published mapping

Verification route live map row match

Statistics / ALG1-N04

Practice evidence A sum=50 and B sum=50. Both means and medians are 10 minutes.

ALG1_2026_08_18 public question

Official published mapping

Verification route live map row match

Growth and functions / ALG1-N05

Practice evidence 80 mg is the initial amount. Each cycle retains 75%, removing 25%.

ALG1_2026_08_5 public question

Official published mapping

Verification route live map row match

Quantities and precision / ALG1-N06

Practice evidence 1.2 m by 0.5 m gives 0.6 square meter.

ALG1_2026_08_35 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.

Check both constraints

ALG1_2026_01 Q35 | Published result 3/6

Observed evidence

The response established the two equations and checked the proposed values against only one. Compare the complete example on pages 77–78.

Possible interpretation

The student may think one true receipt verifies a pair, or may have stopped after one check.

Diagnostic prompt

If one receipt works and the second fails, what can you conclude about the proposed prices?

Teaching move

Use a two-row receipt check. Require a numerical result beside each total and one decision about the pair.

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.

Translate a boundary

ALG1_2026_01 Q30 | Published result 1/2

Observed evidence

The algebra was consistent with the inequality the student wrote. The starting inequality differed from the situation.

Possible interpretation

The barrier may be interpreting the spending limit rather than solving the inequality.

Diagnostic prompt

Would spending exactly the budget work? What about one dollar more?

Teaching move

Have the student classify three boundary cases before choosing a sign, then solve the chosen model.

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.

Restrict a graph to its context

ALG1_2026_08 Q33 | Published result 3/4

Observed evidence

The response extended the graph beyond the axes in a way the scorer identified as inconsistent with the context.

Possible interpretation

A familiar graph-drawing routine may have overridden the physical limits.

Diagnostic prompt

What would a point in the extension mean in the story? Could that event happen?

Teaching move

Mark the first and last meaningful input. Ask for the event represented at each endpoint before drawing the curve.

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
ALG1-N01 Charging the battery cart	Write both cost functions and find their intersection.	Now charge in half-hour increments. State the first cheaper allowed duration and explain why the continuous threshold stays six hours.
ALG1-N02 Raised garden arch	Find both ground contacts and the maximum height.	Sketch a second arch h(x)=-2x^2+20x. Which horizontal boundaries change for a 16-foot opening?
ALG1-N03 Two receipt checks	Test the proposed prices $8 per sandwich and $3 per drink against both receipts.	Replace receipt B with a budget of at most $35. Describe what changes in the solution set.
ALG1-N04 Same center, different repair times	Compute the mean and median for each team.	Create a sixth observation that changes one mean without changing its median. Explain the effect.
ALG1-N05 Labels on an exponential model	Interpret 80 and 0.75 in C.	Replace 0.75 with 1.25 and state which interpretation changes.
ALG1-N06 Measuring foam panels	Convert the dimensions to meters and find one panel area.	Add a 10% waste allowance to required area and revise the cost.

Retained three-week Studio sequence

Week 1 session 1 Two receipts

Week 1 session 2 Read a function across representations

Week 2 session 3 Make the boundary count

Week 2 session 4 Summarize a distribution

Week 3 session 5 Find what a zero means

Week 3 session 6 Choose and check a model

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

ALG1-N01 Charging the battery cart

Using the lower hourly rate without checking the fixed charge. This is a diagnostic hypothesis. Ask the learner to explain the step before selecting a response.

Related reasoning GEO-N05 An open cylinder, ALG2-N01 A changing coolant temperature

ALG1-N02 Raised garden arch

Reporting two boundary points without including the positions between them. This is a diagnostic hypothesis. Ask the learner to explain the step before selecting a response.

Related reasoning GEO-N06 Which transformations undo each other?, ALG2-N02 A platform that repeats

ALG1-N03 Two receipt checks

Assuming a proposed pair must be wrong because the question asks for a check. This is a diagnostic hypothesis. Ask the learner to explain the step before selecting a response.

Related reasoning GEO-N05 An open cylinder, ALG2-N01 A changing coolant temperature

ALG1-N04 Same center, different repair times

Concluding equal averages imply equal distributions. This is a diagnostic hypothesis. Ask the learner to explain the step before selecting a response.

Related reasoning GEO-N03 Two similar ramps, GEO-N04 Sector signs

ALG1-N05 Labels on an exponential model

Treating a constant percent decrease as a constant subtraction. This is a diagnostic hypothesis. Ask the learner to explain the step before selecting a response.

Related reasoning BIO-N03 Where does the dry mass come from?, BIO-N04 A response that reverses a change

ALG1-N06 Measuring foam panels

Applying one linear conversion to an area. This is a diagnostic hypothesis. Ask the learner to explain the step before selecting a response.

Related reasoning GEO-N03 Two similar ramps, GEO-N04 Sector signs

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.