Algebra I

Released form evidence

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.

Eligible public forms • January 2 / June 3 / August 3

Worked responses and follow-up questions

1 Two receipts

3c + 2t = 12 and 2c + 4t = 16. The claim gives $12.50 on receipt one. Double the first equation, subtract the second, and get 4c = 8. Coffee is $2 and tea $3. Both receipts check.

If a total replaces a coefficient, have the student label each term in dollars.

2 Read a function across representations

The rate is (20 − 14)/4 = $1.50 per cup. C = 14 + 1.5n. Equating costs gives n = 28. The point (28,56) means both charge $56 for 28 cups.

If the student chooses 14 as the rate, ask what changes between two rows.

3 Make the boundary count

4n + 2p ≤ 48 and n + p ≥ 15, for whole n,p ≥ 0. (8,7) costs $46 for 15 items. (10,5) costs $50 for 15 items and exceeds budget.

If both pass, ask the student to show a cost and item count for each pair.

Average mapped multiple-choice slots per released form

Feature	January	June	August
Function notation and evaluation	2.50	3.67	2.33
Solve one-variable equations and inequalities	2.00	2.33	2.00
Build equations and constraints	1.50	1.33	1.33

A dash marks an unavailable month. Rows can overlap. See seasonal_evidence.csv for counts, uncertainty and the full feature set.

Official design or administration guidance

Algebra I

4 Summarize a distribution

First mean 5 and median 4. New mean 48/6 = 8 and median 4.5. Median better reflects the cluster because the long delivery pulls the mean up.

If the new median is 4, have the student locate positions 3 and 4.

5 Find what a zero means

h = t(6 − t). Launch and landing are at 0 and 6 seconds. Symmetry gives t = 3 and h(3) = 9 meters. The zeros mean ground level.

If the student reports 3 meters, ask for both coordinates of the vertex and their units.

6 Choose and check a model

At 40 flyers costs are $34 and $30. Equality gives 12 = 0.20n, so 60 flyers and $42. The first is cheaper above 60 because its per-flyer price is lower.

If equality is the entire answer, ask for one example on each side of 60.

Released practice for each week

Week 1 2026-01 • Q35 • Check and solve a system
Question booklet **Official mapping / guide**

Week 2 2025-01 • Q35 • Graph and interpret a system
Question booklet **Official mapping / guide**

Week 3 2026-08 • Q35 • Model another system
Question booklet **Official mapping / guide**