

Quantitative response formats: all valid values and numerical entry

Original classroom teaching; not an official form or score predictor

1. Scope and task

Scope and task

Original classroom practice within the reviewed shorter-test task types. This does not simulate an adaptive test or predict a scaled or writing score. Earlier official public forms remain exposed practice; their version and writing-source holds still apply.

2. Scope and task

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Select every allowed answer without assuming a fixed number State numerical answers in the requested representation and unit Use estimation and substitution to verify a computed response

3. Scope and task

Scope and task

candidate solution : A value produced by a solving step that still needs checking.

4. Scope and task

Scope and task

rounding : Reporting a value at a stated precision after calculation.

5. Read the evidence and choose a method

Read the evidence and choose a method

Read the response instruction before calculation. Select-one asks for one option; select-one-or-more can require several; Numerical Entry has no options to cue an approximate answer. Identify restrictions such as integer, positive or rounded to a stated precision. In select-all tasks, test every option against those restrictions.

6. Read the evidence and choose a method

Read the evidence and choose a method

Solving a transformed equation yields candidates. A denominator restriction or a sign requirement in an unsquared radical can remove one. Substituting into the original is more reliable than recognising a familiar-looking list of roots. For inequality options, test the strict or inclusive boundary as written.

7. Read the evidence and choose a method

Read the evidence and choose a method

A requested fraction and a requested decimal require different entry forms. Equivalent fractions are accepted in official Numeric Entry; simplify if needed to fit the boxes. Apply rounding only at the end when instructed. Check units: a percentage answer 25 differs from a probability answer 0.25. The free local numerical drill below requests an exact terminating decimal; it is a teaching check, not a replacement for the official two-box fraction interface.

8. Read the evidence and choose a method

Read the evidence and choose a method

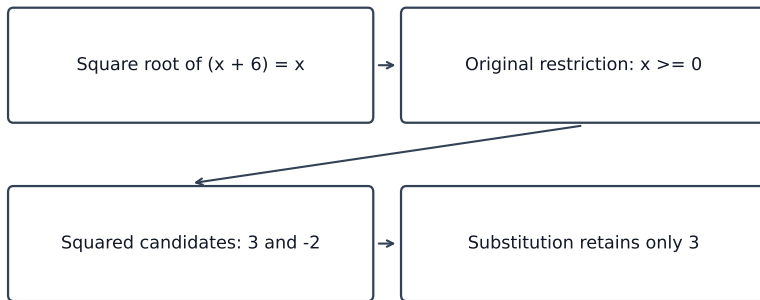
Estimate before using the on-screen General-test calculator and verify after entry. An implausible order of magnitude often reveals misplaced parentheses or a percent converted incorrectly. The GRE General mathematical level does not require calculus; sophisticated reasoning can still arise from elementary constraints and careful instructions.

9. Worked reasoning

Worked reasoning

Original select-all: x is real and $(x-2)(x+3)=0$. Choices $-3, -2, 0, 2, 3$. Select -3 and 2 , and verify each factorisation root in the original. If the stem additionally requires $x > 0$, only 2 remains. Original numerical entry: three of eight equally likely counters are marked; enter the probability as a decimal. $P(\text{marked})=3/8=0.375$. Enter 0.375 , not 37.5 (a percent value) or 3 (the count).

Figure 10: Worked reasoning



Check the labelled values and conditions.

11. Conditions and common errors

Conditions and common errors

The number of correct select-all choices comes from the constraints, not from a guessed pattern. Numeric form is part of the task.

12. Original application

Original application

Select all real solutions of $\sqrt{x+6} = x$ from -3, -2, 0, 2, 3. Then enter the probability of drawing one marked counter from a bag with seven marked and thirteen unmarked counters, as a decimal.

13. Model and reasoning

Model and reasoning

3 only; 0.35. The original radical requires x nonnegative. Squaring gives $x^2 - x - 6 = (x - 3)(x + 2) = 0$. The candidate -2 fails both the sign condition and substitution. At 3 both sides equal three. For the probability, the denominator is twenty, so $P = 7/20 = 0.35$. Enter a probability, not the percent value 35.

14. Try independently

Try independently

Select every listed integer satisfying $-2 \leq x < 4$ and $x^2 > 1$: -3, -2, -1, 0, 1, 2, 3, 4.
Then enter 7/12 as a decimal rounded to the nearest hundredth.

15. Reasoning and check

Reasoning and check

-2, 2 and 3; 0.58. The first restriction keeps integers -2 through 3. The strict squared inequality excludes -1,0,1. Four fails the strict upper endpoint; -3 fails the lower bound. The decimal $7/12 = 0.58333\dots$ rounds to 0.58. The rounding instruction here is explicit; an exact fraction response would require the fraction representation instead. Check each listed value and retain every valid one.

Check yourself

Reconstruct the method without looking back

Select every listed integer satisfying $-2 \leq x < 4$ and $x^2 > 1$: -3, -2, -1, 0, 1, 2, 3, 4.
Then enter 7/12 as a decimal rounded to the nearest hundredth.