

Gridded Item Quick Reference Card

Schoolnet supports gridded items. Use this type to support numeric answers when you don't want to give away possible answers in a multiple choice item. Although typically used for math, note that gridded items could also be used for questions such as the following:

- How many lines are typically in a sonnet?
- In what year was the Declaration of Independence signed?
- How many columns (or groups) are in the periodic table?

How many lines are typically in a sonnet?

Answer

1	4
0	0
1	1
2	2
3	3
4	4
5	5

Respondents choose their own answer by filling in an answer rather than choosing an answer from a pre-defined list. Students select the appropriate bubbles or type in the response to enter their answer. Gridded test items are scored automatically just like multiple choice items.

For plain paper answer sheets, keep in mind that gridded items take up more space than other item types.

For details on the fundamentals of creating items, including standards alignment, refer to the *Basics of Item Creation Quick Reference Card*.

Supported Features

The following options are supported for online administration, plain paper answer sheets, QTI import/export, upload scores, answer key only tests and screen readers.

- Up to 8 columns, not including positive/negative column
- Show more columns than needed for the answer so as not to give away the length of the answer
- Optionally require answers to be entered with each digit in the column corresponding to its mathematical place
- Show/hide a pre-populated decimal point column on the grid
- Show or hide a positive/negative sign
- Show or hide a fraction sign
- Use a mixed fraction (for example, 2 3/4) including a space between the whole number and the fraction

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- Indicate if answers equivalent in value to the one they provide should be considered correct or incorrect:
 - Allow or disallow equivalent decimal answers when fraction answer specified
 - Allow or disallow equivalent fraction answers when fraction answer specified

Considerations for Creating a Gridded Item

It is important the item is written so that students understand how to enter the answer correctly on the grid. Be sure to preview the item before scheduling the test.

Question Content + Add Passage

Find the value of the expression for the given values of the variables. Enter your answer as a fraction.

$$\frac{2s}{z^2}, \text{ when } s = -4 \text{ and } z = 7$$

Answer: Columns: Points:

Answer Grid Preview:

-			8	/	4	9
---	--	--	---	---	---	---

Fraction must be entered exactly as shown here
 Allow -.16327 and -0.1633 as correct answer

GRID RESPONSE OPTIONS

Show Positive/Negative Sign Show Fraction (/) Show Decimal Point

The format of the correct answer you provide impacts what additional options are available:

- **Whole Number Answer:** If a whole number is entered as the answer, a checkbox appears. Enable it if you want the response to be correct only if all digits in the answer are in the correct column.
- **Decimal Answer:** If a decimal is entered as the answer, a checkbox appears. Enable it if you want a column dedicated to the decimal point. Check the Answer Grid Preview to make sure the decimal pre-populates as expected.
- **Fraction Answer:** If a fraction is entered as the answer, the Answer Grid Preview reflects this automatically, and two additional checkboxes appear. They allow you to require the fraction to be entered exactly as you entered it or to allow a decimal equivalent to the fraction to count as correct.
- **Columns Field:** The columns field adjusts automatically, based on what is entered in the Answer field. It is not possible to enter a smaller number of columns, but it is possible to enter a number of columns greater than is necessary to enter the answer correctly. For example, if the answer is -54.2345, the Columns field automatically adjusts to 7 (can be increased to 8). If the answer is 2, then the Columns field automatically adjusts to 1 but can still be increased to 8.

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Select the appropriate **Grid Response Options** to appear on the grid:

- **Show Positive/Negative Sign:** A positive/negative sign bubble will appear on the grid. If the answer you entered is a negative number, this option is automatically selected.
- **Show Fraction (/):** A fraction row will appear on the grid. This option is automatically selected if the answer you entered is a fraction.
- **Show Decimal Point:** A decimal point row will appear on the grid. If the answer has a decimal point and you opted to pre-populate the decimal point, then this option is automatically deselected and grayed out, as there is no need to select it. If the answer has a decimal point, and you opted not to pre-populate the decimal point, then this option is automatically selected and grayed out.

Find the value of the expression for the given values of the variables. Enter your answer as a fraction.


$$\frac{2s}{z^2}, \text{ when } s = -4 \text{ and } z = 7$$


Enter your answer by clicking the bubbles.

+	0	0	0	0	0	0
-	1	1	1	1	1	1
	2	2	2	2	2	2
	3	3	3	3	3	3
	4	4	4	4	4	4
	5	5	5	5	5	5
	6	6	6	6	6	6
	7	7	7	7	7	7
	8	8	8	8	8	8
	9	9	9	9	9	9
/	/	/	/	/	/	/

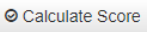
Sample student view of gridded item in TestNav

Previewing and Checking the Possible Answers

 Preview Test

 Preview Online Test

When you use or create a gridded answer, it is a best practice to preview the items and make sure various student responses will result as expected: either correct or incorrect. Enter a possible answer and click **Calculate Score** to check. You can edit the instructions as needed to specify place values, fractions, etc.

 Calculate Score

Maria cut $\frac{3}{4}$ yard of ribbon into pieces that are $\frac{1}{8}$ yard long. How many pieces of r

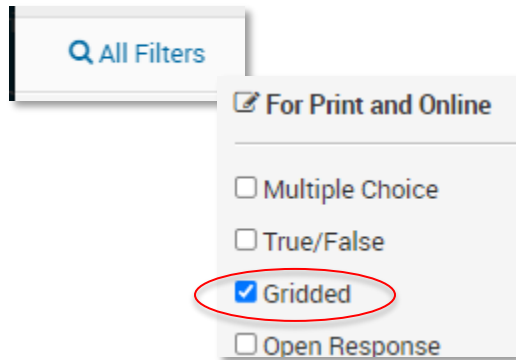
The score for your answer is: 1 out of 1


Maria cut $\frac{3}{4}$ yard of ribbon into p

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Searching for Existing Gridded Items

In the Item Bank, use the All Filter link to access the item type search where you can filter on gridded items. In the results, you can see what item preferences are associated with each item.



Gridded 

Two sides of a triangular garden are each 160 feet long. They meet at an angle of 70° . How many feet of fence material are needed to surround the garden? (Round your answer up to the next whole number of feet.)

✓ 00000504

Item Preferences:

- Answer grid - 8 column(s)
- Negative option on grid - No
- Fraction (/) option on grid - Yes
- Decimal option on grid - Yes

Sample item details available with item search results

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Example

For the item below, there are multiple options on what answer(s) are acceptable. Be sure to add to the question content any parameters about what format is desired.

Option A

Question Content

Solve the equation below.

$$5\frac{7}{12} - 4\frac{1}{12} =$$

Answer **Columns** **Points**

Fraction must be entered exactly as shown here
 Allow 1.5 as correct answer

GRID RESPONSE OPTIONS ⓘ

Show Negative Sign Show Fraction (/) Show Decimal Point

Entering in 1.5, 1 1/2, 1 6/12 will all be correct. So too would be 1 2/4, 1.5000, 3/2 or 6/4. Anything equivalent to 1 6/12 is going to be accepted. There is no way to accept 1 1/2 and 1 6/12 without also accepting 6/4.

Option B

Gridded [Change Type ▾](#)

Question Content [+ Add Passage](#)

Solve the equation below.

$$5\frac{7}{12} - 4\frac{1}{12} =$$

Answer **Columns** **Points**

Fraction must be entered exactly as shown here
 Allow 1.5 as correct answer

GRID RESPONSE OPTIONS ⓘ

Show Negative Sign Show Fraction (/) Show Decimal Point

Answer Grid Preview

	1		6	/	1	2
--	---	--	---	---	---	---

Student would need to enter in either 1 6/12 or 1.5. Equivalent decimals like 1.5000 are acceptable, but 1 1/2 or 6/4 would not.