

Gridded Item Fact Sheet

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 like 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

Gridded test items are scored automatically just like multiple choice items, except that respondents choose their own answer by filling in the grid rather than choosing an answer from a pre-defined list. In the online test tunnel, the answer bubbles look like they do on a printed test. Students select the appropriate bubbles or type in the response to enter their answer.

For tests that will be administered in TestNav there is an option to provide an auto-scored text box instead of answer bubbles.

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

Supported Features

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

- Up to 8 columns
- 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/hide a negative sign
- Show/hide a fraction slash

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- Use a mixed fraction (for example, $2\frac{3}{4}$) including a space between the whole number and the fraction
- Indicate if answers equivalent in value to the one they provide should be considered correct or incorrect:
 - Allow/disallow equivalent decimal answers when fraction answer specified
 - Allow/disallow equivalent fraction answers when fraction answer specified

Creating a Gridded Item

It is important that the test question 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.

The screenshot shows a question editor interface. At the top, there is a text box labeled "Question Content" containing the question: "What is the approximate value of t , to the nearest hundredth, in the equation $150e^{0.02t} = 400$?" Below the question content, there are three input fields: "Answer" with the value "49.04", "Columns" with a dropdown menu showing "6", and "Points" with a dropdown menu showing "1". To the right of these fields is an "Answer Grid Preview" showing a grid with five columns containing the digits "4", "9", ".", "0", and "4". Below the answer fields, there is a checkbox labeled "Pre-populate the decimal point in column" followed by a dropdown menu and the text "from the left". At the bottom of the interface, there is a section titled "GRID RESPONSE OPTIONS" with three checkboxes: "Show Negative Sign", "Show Fraction (/)", and "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 , then 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 Negative Sign:** A negative sign bubble will appear on the grid. This is a single bubble (not a row) that precedes the answer bubbles. 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.

Searching for Existing Gridded Items

In the Item Bank, use advanced search to filter on gridded items. In the results, you can see what item preferences are associated with each item.

Item Type

None Selected

- Multiple Choice
- Gridded
- True/False
- Open Response
- Inline Response
- Matching
- Checklist
- Task
- Hot Spot - Single Selection
- Hot Spot - Multiple Selection
- Drag and Drop
- Click Stick Click Drop

Cancel OK

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

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Examples

For the problem 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
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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.