

Sakai Community Documentation

Enter a keyword or topic to search **Q** Search How do I create a calculated question?

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This allows for a calculated question to be added to a new or existing

based on variables whose value changes each time. The answer is based on a formula, using those variables. Go to Tests & Quizzes.

Assignments

assessment. A calculated question calculates new answers for every test,

Tests & Quizzes ☐ Drop Box Select the **Tests & Quizzes** tool from the Tool Menu in your site. Select an assessment.

Questions may be added to any assessment. Select an existing assessment or create a new one.

Note: You may also add a question directly to a question pool. Create a New Assessment.

% Link ? Help

Click Add.

☑ TESTS & QUIZZES

assessment? Or edit an existing assessment.

For more information on creating new assessments, see How do I create an

Select Calculated Question from drop-down menu.

After selecting Calculated Question from the drop-down menu, the program will

Display points?

Set the point value for the question.

open options for the question.

choose.

below).

the question, select No. **Add Question Text.**

Do you want students to see the point value as they are taking the test? If so, leave

the default setting of Yes. If you prefer that students do not see the point value for

Variables: Define variables to use in this question below. Reference them in the question text by putting them in single curly braces eg. {x}. Variable names are alpha-numeric but must begin with an alpha character.

answer expression. • Variables and Formulas cannot have the same name. • See http://mathparser.org/mxparser-math-collection/ for the full set of valid

• There are two built-in constants, PI(3.14...) and e(2.718...). Use them in your

Click the Extract Variables, Calculations, and Formulas from Question Text button to create the variables and formulas.

Define ranges of variable values.

Enter the mathematical expression for each Formula, inserting the Variables where needed.

Add attachment. (Optional)

Assign to pool. (Optional)

Add Assessments Question Pools Event Log User Activity Report

Tip: Keep in mind that the point value of all the questions in the assessment will equal the point value of the assessment in the Gradebook. So, if you want your assessment to be worth a total of 100 points, you should assign point values to your questions accordingly.

Enter the point value for this question. Questions may be worth any point value you

Type the Question Text into the text box provided. This is the information that the

student will see, including the variable and formula placeholders (see examples

where the student's input box will display. Formula names are alpha-numeric but

Example: Solve: $COS({a}) * ({c} - {b}) = {{z}} Formula z would be <math>COS({a}) * ({c} - {b})$

• You may define acceptable tolerance as a constant (0.01) or percentage (1.5%)

• You can use the following math functions: SIN, COS, TAN, ASIN, ACOS, ATAN,

Example: Kevin has {x} apples. Jane eats {y}. How many does Kevin have now? $\{\{z\}\}$ Formulas: Place double curly braces (e.g. {{y}} around a formula name, to define

must begin with an alpha character.

of the answer. (Defaults to 0.01.)

ABS, EXP, SGN, SQRT, LOG10, and LN.

Valid Operators: + - * / ^ ! # ()

• Variables and formulas support decimals. Default is 3.

Keep in mind the following:

math functions and operators. Note: To edit with <u>Rich-Text Editor</u>, click the hyperlink to open the full menu.

Click Extract Variables, Calculations, and Formulas.

If you have multiple parts in your assessment, you may assign the question to a

If you have an existing question pool and would like to copy this question to the

Feedback is optional text available for the student to review after the particular question is graded. For numeric response questions, the feedback option is offered

Click Save.

Click Save to save the question (or Cancel to exit).

Change the Min, Max, and Decimal Places for all of the variables to define their ranges of valid values.

Enter the formula.

pool, select the pool name here.

for correct and/or incorrect answers, if desired. Note: To edit with Rich-Text Editor, click the hyperlink to open the full menu.

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Click Add Attachments to browse for and select a file attachment if desired. Assign to part. (Optional)

different part.

Add feedback for correct answer and/or incorrect answer. (Optional)