

1.6.11 Arithmetic Question

This tutorial explores the Arithmetic Question type for quizzes. This tutorial assumes you are completing **Tutorial 1.6.1 step 3** and have selected Arithmetic. In this type of question, Avenue automatically calculates the correct answer based on a formula and grades the student.

STEP 1

Assign the grade points and type in the question text.

The screenshot shows the question editor interface. It includes a 'Points' field with the value '1', a 'Difficulty' dropdown menu set to '1', and a 'Question Text' field with a rich text editor toolbar. Red arrows point to the 'Points' field and the 'Question Text' field.

STEP 2

Type the formula that is the answer to the question (student will not see this). Select the ? for more detail (it is also posted below).

The screenshot shows the formula input field. It includes a 'Formula*' label, a text input field, a 'Test' button, and a question mark icon.

Information: Formula

All variables must be enclosed in curly braces.

i.e. $2 * \{x\} + \{y\} - \{z\}$

Here are some of the supported functions:

$+, *, /$ - basic mathematical operators

$\{x\}^{\{y\}}$ - x to the power y

$\text{abs}(\{n\})$ - absolute value of n

$\text{cos}(\{n\})$ - the cosine of n (in radians)

$\text{sin}(\{n\})$ - the sine of n (in radians)

$\text{sqr}(\{n\})$ - the square root of n

$\text{tan}(\{n\})$ - the tangent of n (in radians)

$\text{log}(\{n\})$ - the log base 10 of n

$\text{ln}(\{n\})$ - the log base e of n

The following constants are supported:

pi - 3.14159265358979

e - 2.71828182845905

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STEP 3

Enter a tolerance. The students answer can be within this tolerance and be marked correct.

Tolerance

units +/-

percent +/-

STEP 4

Proper units can be enforced and graded. Type in the correct units and specify the measurement system clearly in the instructions.

Units

Worth: % of Points

STEP 5

Enter information about the variables that will be given.

Variables

+ Add Variable

#	Name	Min	Max	Decimal Places	Step	Remove
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="0"/>	<input type="text"/>	<input type="text"/>

STEP 6

Select **Save** when done.