

Variable Numeric Set question type

Please simplify this formula:

$$\int_2^7 49x dx$$

Answer:

Please simplify this formula:

$$\int_2^6 36x dx$$

Answer:

An example of Variable Numeric Set question type

Overview:

This guide will show you how to create a Variable Numeric Set question type.

What to know:

The features of Variable Numeric Set question type is listed below.

1. It supports random variables into the questions. (As can be seen from the example above, one student see the question as the first picture, while another student see the question as the second picture. It is this question uses random variables.)
2. It supports variables defined by other expressions.
3. It supports variables with multiple pre-defined values.
4. It supports answer tolerance and the use of units.

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Step 1: Access the Quiz activity where you want to create the question

In your module area/course, click the link of the Quiz activity where you want to create a question.

▼ Topic 5

Example Quiz

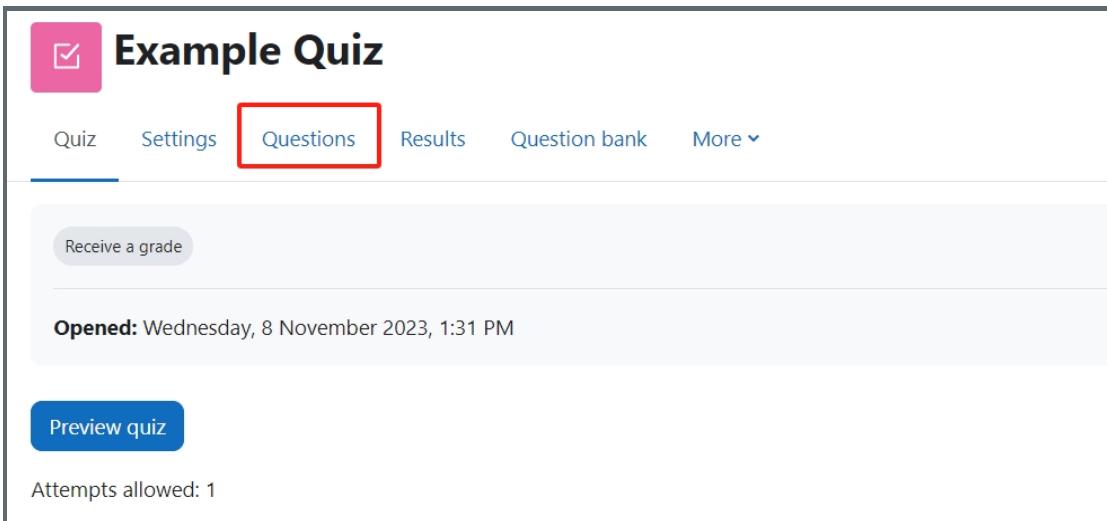
Receive a grade

Opened: Wednesday, 8 November 2023, 1:31 PM

to create one.

Step 2: Open the 'Questions' tab

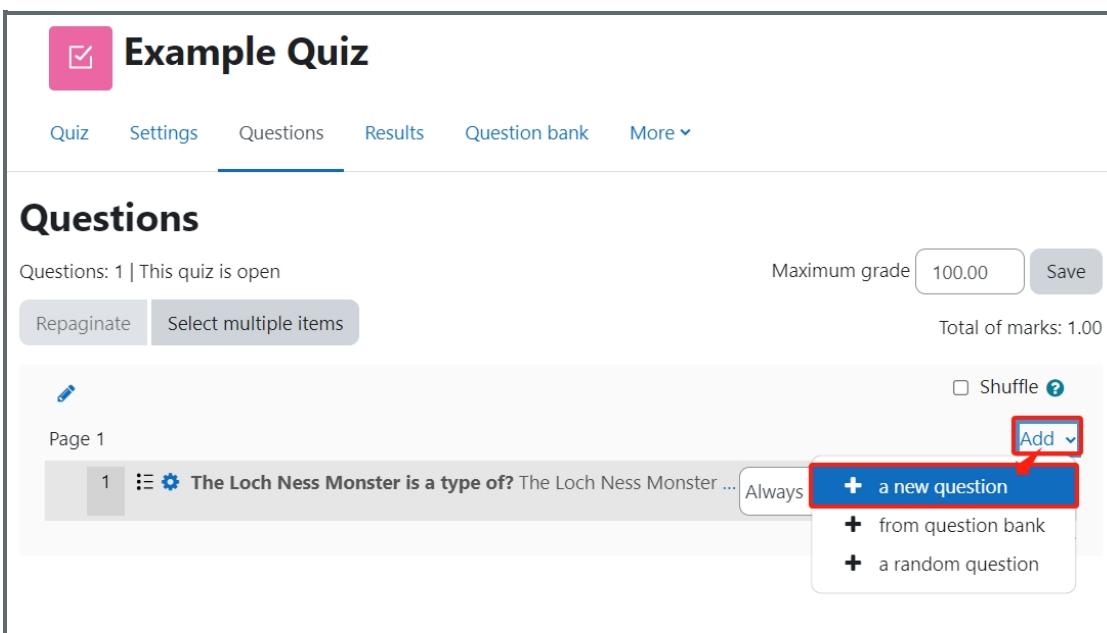
1. Open the 'Questions' tab



The screenshot shows the 'Example Quiz' interface. At the top, there is a navigation bar with tabs: Quiz, Settings, Questions, Results, Question bank, and More. The 'Questions' tab is highlighted with a red box. Below the navigation bar, there is a button labeled 'Receive a grade'. Underneath that, the text 'Opened: Wednesday, 8 November 2023, 1:31 PM' is displayed. A blue button labeled 'Preview quiz' is visible. At the bottom, the text 'Attempts allowed: 1' is shown.

Step 3: Add a new question

1. On the following page, click the 'Add' link.
2. Click the 'a new question' link in the dropdown menu.



The screenshot shows the 'Example Quiz' interface with the 'Questions' tab selected. At the top, there is a navigation bar with tabs: Quiz, Settings, Questions, Results, Question bank, and More. Below the navigation bar, the word 'Questions' is prominently displayed. On the left, there is a 'Repaginate' button and a 'Select multiple items' button. On the right, there are buttons for 'Maximum grade' (set to 100.00), 'Save', 'Total of marks: 1.00', and 'Shuffle'. A red box highlights the 'Add' button, which has a dropdown menu. The dropdown menu contains three options: '+ a new question' (highlighted with a red box), '+ from question bank', and '+ a random question'.

Step 4: Choose a question type

1. Locate and select the Variable Numeric Set question type from the pop-up window.
2. Click the 'Add' button.

Choose a question type to add

X

-  Numerical
 - Allows a numeric response, question can have several 'variants', expressions are pre evaluated for each question variant
-  Calculated
 - $\frac{2+2}{=}$ Calculated simple
 - $\frac{2+2}{=}$ Calculated multichoice
-  Variable numeric
-  Variable numeric set
 - Variable numeric set with units
-  STACK
-  VPL Question
-  CodeRunner

Add

Cancel

Step 5: Settings

The settings of Variable Numeric Set question type is very similar to the 'Variable Numeric' question type. The only difference is the definition of variables (Step 8 of Guide of 'Variable Numeric' question type). Please refer to the guide for general settings: [Guide of Variable Numeric Set question type](#) .

Step 8: Set up variables

There are still two types of variables in variables:

1. Calculated variable: the same with 'Variable Numeric' question type, e.g. value b .
2. Predefined variable: the values that can be given to the variable is unlimited, e.g. value a .

Variables

Predefined variable	
Variable 1 ②	a 2
Value for variant 1 ②	4
Value for variant 2	6
Value for variant 3	8
Value for variant 4	10
Value for variant 5	

Add 2 more blanks for more variants

Calculated variable	
Variable 2 ②	b=a/2 Value for variant 1 ②
Value for variant 2	
Value for variant 3	
Value for variant 4	
Value for variant 5	

Tips:

The random variables, such as variable a and b, need to be covered with '[[]]', the whole formula needs to be covered with '\$\$' before and after so that the system knows it is a random variable.

Note:

For more information about Variable Numeric question type, please access the official documentation:
<https://www.open.edu/openlearncreate/mod/oucontent/view.php?id=52747§ion=2.1.2>