

# Variable Numeric Set question type



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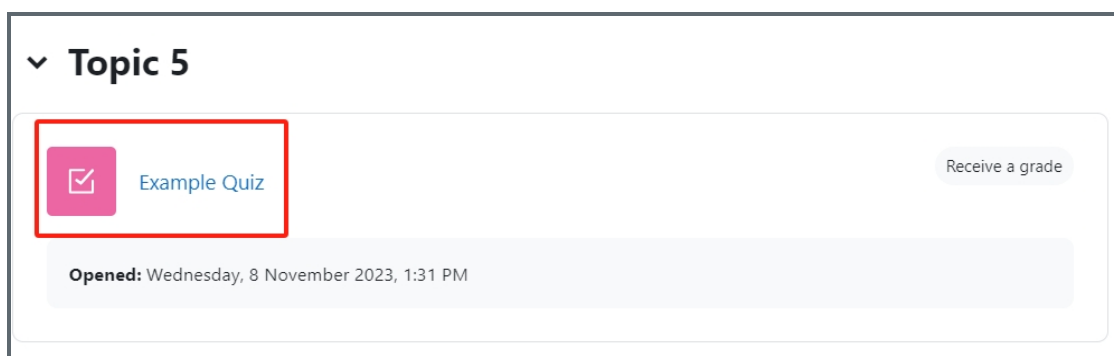
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### Step 1: Access the Quiz activity where you want to create the question

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

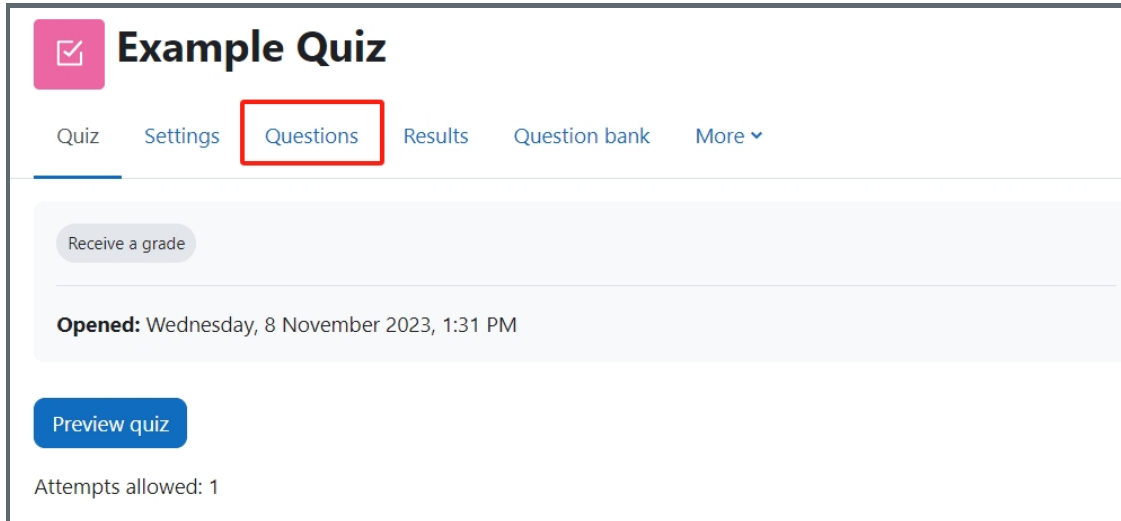


Note: If an appropriate Quiz activity doesn't exist in your module area/course, please see [Add a quiz](#) for details of how

to create one.

## Step 2: Open the 'Questions' tab

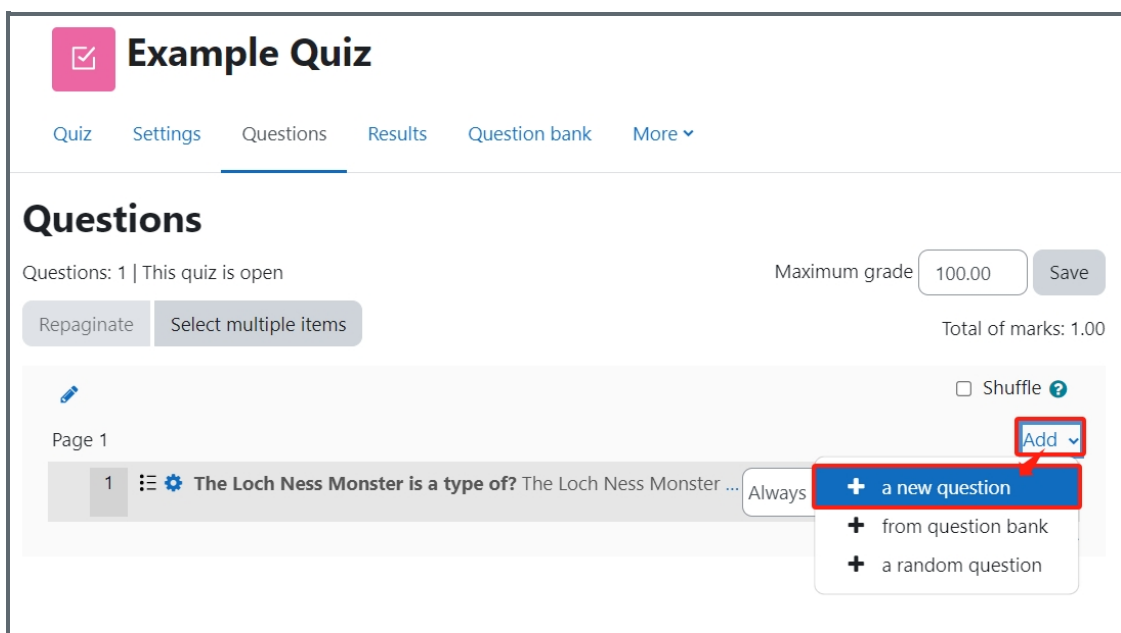
1. Open the 'Questions' tab



The screenshot shows the 'Example Quiz' interface. At the top, there is a navigation menu with tabs: 'Quiz', 'Settings', 'Questions', 'Results', 'Question bank', and 'More'. The 'Questions' tab is highlighted with a red box. Below the navigation menu, there is a 'Receive a grade' button. Underneath, it says 'Opened: Wednesday, 8 November 2023, 1:31 PM'. There is a blue 'Preview quiz' button and 'Attempts allowed: 1' at the bottom.

## 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 'Questions' page. At the top, there is a navigation menu with tabs: 'Quiz', 'Settings', 'Questions', 'Results', 'Question bank', and 'More'. The 'Questions' tab is highlighted. Below the navigation menu, there is a 'Questions: 1 | This quiz is open' status. To the right, there is a 'Maximum grade' input field with '100.00' and a 'Save' button. Below that, there are 'Repaginate' and 'Select multiple items' buttons. On the right, there is a 'Total of marks: 1.00' label. In the main content area, there is a question card for 'The Loch Ness Monster is a type of?'. To the right of the question card, there is an 'Add' button with a dropdown arrow. The dropdown menu is open, showing three options: '+ a new question', '+ from question bank', and '+ a random question'. The '+ a new question' option is highlighted with a red box.

## 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 ✕

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 Numerical

$2+2=?$  Calculated


$2+2=?$  Calculated simple


$2+2=?$  Calculated multichoice


$x^2$  Variable numeric

$\{1,2\}$  Variable numeric set

$\{1\}m$  Variable numeric set with units

 STACK

 VPL Question

 CodeRunner

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## 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 ?

a

Value for variant 1 ?

2

Value for variant 2

4

Value for variant 3

6

Value for variant 4

8

Value for variant 5

10

Add 2 more blanks for more variants

Calculated variable ▾

Variable 2 ?

$b=a/2$

Value for variant 1 ?

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&section=2.1.2>

Online URL: <https://knowledgebase.xjtlu.edu.cn/article/variable-numeric-set-question-type-179.html>