# Variable Numeric Set with Units question type

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		Please simplify this formula: $\int_{2}^{7} 49x dx$		Please simplify this fomula: $\int_{2}^{6} 36x dx$ Answer:		

An example of Variable Numeric Set with Units question type

### Overview:

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

### What to know:

The features of Variable Numeric Set with Units question type are listed below.

- 1. It supports random variables in the questions. ( As can be seen from the example above, one student sees the question as shown in the first picture, while another student sees the question as shown in the second picture. It is because 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		
<b>Opened:</b> Wednesday, 8 November 2023, 1:31 PM			

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

Example Quiz		
Quiz Settings Questions Results Question bank More ~		
Receive a grade		
<b>Opened:</b> Wednesday, 8 November 2023, 1:31 PM		
Preview quiz		
Attempts allowed: 1		

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.

Example Quiz	2
Quiz Settings Questions	Results Question bank More ~
Questions Questions: 1   This quiz is open Repaginate Select multiple items	Maximum grade 100.00 Save Total of marks: 1.00
Page 1 1 ⋮≣ ✿ The Loch Ness More	■ Shuffle Add Add + a new question + from question bank + a random question

## Step 4: Choose a question type

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

Choose a question type to add			
2+2 Calculated	Allows a numeric response with units,		
Calculated ⇒? simple	question can have several 'variants', expressions are pre evaluated for each		
Calculated	question variant		
🔿 者 Variable numeric			
Variable numeric			
<ul> <li>Image: Wariable numeric</li> <li>Image: Set with units</li> </ul>			
🔿 🥜 STACK			
VPL Question			
Cr CodeRunner			
OTHER			
Description			
Add	Cancel		

### Step 5: Settings

The settings of Variable Numeric Set with Units question type is very similar to the 'Variable Numeric Set' question type. The only difference is the ability to add units. Please refer to the guide for general settings: Variable Numeric Set question type .

Step 6: Set up units	

In Unit section. please set up the unit and the grade of the unit.

You can set multiple units to be the correct units.

Units	•
Unit 1	kg
Spaces in units	Remove all spaces before grading
Spacing feedback 🕐	Image:
Replace dashes	No ¢
Grade	100% 🗢
Feedback	

### Tips:

The random variables, such as variable a and b, need to be covered with '[[ ]]', t he whole <u>formula</u> 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-with-units-question-type-180.html