

## Introduction

The LMS contains 17 question types which may be used in any combination to generate tests and surveys. Any time you create a question you will have the option when finished to submit and create another question of that type in the one action.

Note: These instructions work for Tests, Surveys and Pools, assume you are already editing and are ready to create questions. Options may vary depending on the Creation Settings selected.

Categories and keywords may be useful when automatically generating tests from question pools. Questions may be automatically selected using the categories and keywords entered, e.g. you can choose questions of 'High Difficulty' rating, or questions containing the keyword 'cardiology'.

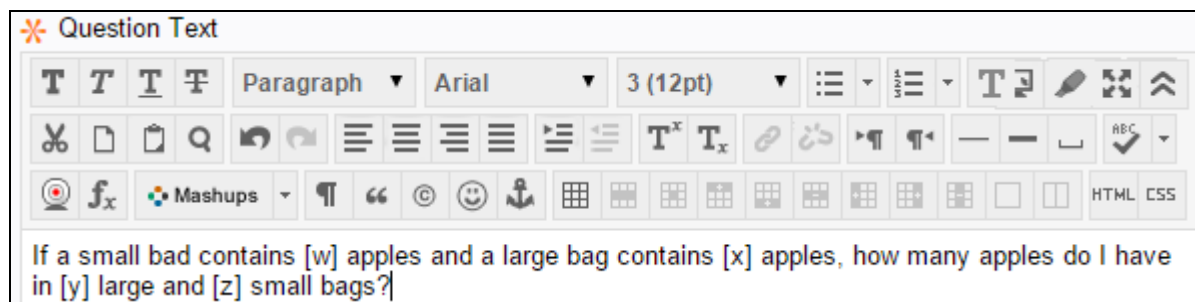
## Calculated Formula

Calculated formula questions contain variables that change so that two different people, or a single person doing a test multiple times, will see a different question.

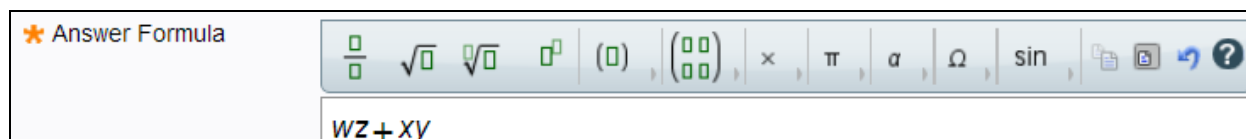
Example question: If a small bag contains 6 apples and large bag contains 15 apples, how many apples do I have in 3 large and 4 small bags?

The variables are the number of apples per bag and the number of bags.

1. From **Create Question** select **Calculated Formula**.
2. Enter *Question Text*, putting square brackets around each variable.  
Note: Variables must be letters, numbers (0-9), periods, hyphens or underscores. No spaces are allowed in variable names.



3. Enter the formula required to produce the solution. Special characters are available under the buttons at the top of the answer formula area.



4. Options allow you to add a percentage variation to the answer range. If the answer must be exact, the range should be set to 0.
5. Choose if partial credit will be allowed.
6. If it is important that the units be included in the answer (e.g. Kg, MHz), these may be specified. Including the correct unit may constitute a percentage of the points of the question.
7. Click **Next**.
8. Enter the minimum and maximum values for each of the variables. If decimal points are allowed, enter the number of places.

	Variable Name	Minimum Value	Maximum Value	Decimal Places
1.	w	<input type="text" value="4"/>	<input type="text" value="8"/>	<input type="text" value="0"/> ▼
2.	x	<input type="text" value="12"/>	<input type="text" value="20"/>	<input type="text" value="0"/> ▼
3.	y	<input type="text" value="5"/>	<input type="text" value="9"/>	<input type="text" value="0"/> ▼
4.	z	<input type="text" value="5"/>	<input type="text" value="9"/>	<input type="text" value="0"/> ▼

9. Enter *Answer Set Options* as required.  
Choose the number of decimal places / significant figures the question should calculate to.  
The number of answer sets will determine the number of sets of variables that will be created.  
The greater the number of sets, the smaller the likelihood of students doing the same question.  
BUT the longer it will take Blackboard to generate the question.
10. Click **Calculate** to create the answer sets and move to the next page.
11. Each answer set is displayed for you. You may tweak any set as desired by altering the variable values. Clicking **Calculate** to update the answers.

	w	x	y	z	Calculated Answer (0 Decimal places)	
1.	<input type="text" value="6.0"/>	<input type="text" value="17.0"/>	<input type="text" value="6.0"/>	<input type="text" value="5.0"/>	132 ± 0	<input type="button" value="Remove"/>
2.	<input type="text" value="7.0"/>	<input type="text" value="15.0"/>	<input type="text" value="5.0"/>	<input type="text" value="6.0"/>	117 ± 0	<input type="button" value="Remove"/>
3.	<input type="text" value="5.0"/>	<input type="text" value="15.0"/>	<input type="text" value="6.0"/>	<input type="text" value="6.0"/>	120 ± 0	<input type="button" value="Remove"/>
4.	<input type="text" value="5.0"/>	<input type="text" value="15.0"/>	<input type="text" value="6.0"/>	<input type="text" value="7.0"/>	125 ± 0	<input type="button" value="Remove"/>
5.	<input type="text" value="6.0"/>	<input type="text" value="19.0"/>	<input type="text" value="5.0"/>	<input type="text" value="7.0"/>	137 ± 0	<input type="button" value="Remove"/>
6.	<input type="text" value="4.0"/>	<input type="text" value="12.0"/>	<input type="text" value="6.0"/>	<input type="text" value="8.0"/>	104 ± 0	<input type="button" value="Remove"/>

12. Click **Remove** to delete sets that you do not want to use.  
Note: Clicking calculate will not bring back removed sets.
13. Enter feedback, categories and keywords as appropriate.
14. Enter **Instructor Notes** if required.
15. Click **Submit**.

### What the calculated formula question will look like to students:

If a small bad contains 5 apples and a large bag contains 15 apples, how many apples do I have in 6 large and 6 small bags?

## Calculated Numeric

Calculated Numeric questions ask a question that requires a number only answer. An answer range is allowed. The correct answer should not contain alphabetic characters. If alphabetic characters are entered as part of the answer (e.g. 3 cm, 8 litres, 100 buildings) the alphabetic component is disregarded.

Example question: In litres, how much water can an Asian elephant hold in its trunk?

1. From **Create Question** select **Calculated Numeric**.
2. Enter the *Question Text* carefully so that it is clear a numeric answer is required.
3. Enter the correct answer and answer range (if allowed).
4. Enter feedback, categories and keywords as appropriate.
5. Enter **Instructor Notes** if required.
6. Click **Submit**.

**What the calculated numeric question will look like to students:**

In litres, how much water can an Asian elephant hold in its trunk?

## Either/Or

One of the simplest question types, Either/Or, asks a question/makes a statement and then allows the student to choose between two options e.g. Yes/No, Agree/Disagree, Right/Wrong, and True/False. Note: There is also a True/False only question type.

1. From **Create Question** select **Either/Or**.
2. Enter a short title and the question text or statement.
3. Select the preferred **Answer Orientation** setting.
4. Select the appropriate **Answer Label** e.g. Yes/No, Agree/Disagree, Right/Wrong, True/False.
5. Click the radio button next to indicate the **Correct Answer**.
6. Enter feedback, categories and keywords as appropriate.
7. Enter **Instructor Notes** if required.
8. Click **Submit**.

**What the either / or question will look like to students:**

Machiavelli is the author of *Il Principe*, which describes the means by which a prince may gain and maintain his power.

---

True  
 False

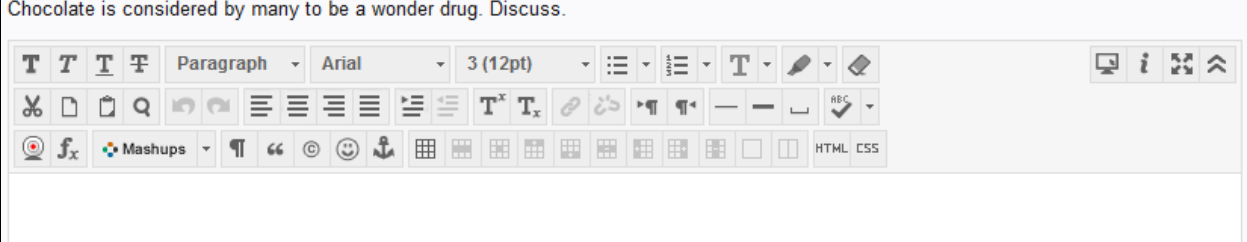
## Essay

Essay questions require text input from the student as their answer. A full array of text formatting tools are provided to the student (see image below). The essay question must be manually marked by teaching staff before results for the entire test will be available to students.

1. From **Create Question** select **Essay**.
2. Enter the **Question Text**.
3. Enter an example *Answer* (optional) to give students and markers an indication of the style of answer you are after. Note: the example answer will be available to students taking the test. Do not enter the correct answer here.
4. Click **Add Rubric** if the use of a rubric is required by staff to mark this question. For more information on rubrics see the Blackboard Rubrics guide: [http://www.lms.unimelb.edu.au/user\\_guides/rubrics\\_guide.pdf](http://www.lms.unimelb.edu.au/user_guides/rubrics_guide.pdf)
5. Enter feedback, categories and keywords as appropriate.
6. Enter **Instructor Notes** if required.
7. Click **Submit**.

### What the essay question will look like to students:

Chocolate is considered by many to be a wonder drug. Discuss.



The screenshot shows a rich text editor interface. At the top, there is a toolbar with various icons for text formatting (bold, italic, underline, strikethrough), alignment (left, center, right, justified), list creation (bulleted, numbered), indentation, and text color. Below the toolbar is a text input area where the question text "Chocolate is considered by many to be a wonder drug. Discuss." is displayed. The interface also includes a "Paragraph" dropdown menu, a font family dropdown (Arial), and a font size dropdown (3 (12pt)).

## File Response

File Response questions will require manual marking by teaching staff. Results for the entire test will not be available to students until the test is marked.

Students will be required to attach a file from either their computer or the content collection that answers the question.

1. From **Create Question** select **File Response**.
2. Enter the **Question Text**.
3. Click **Add Rubric** if the use of a rubric is required by staff to mark this question. For more information on rubrics see the Blackboard Rubrics guide: [http://www.lms.unimelb.edu.au/user\\_guides/rubrics\\_guide.pdf](http://www.lms.unimelb.edu.au/user_guides/rubrics_guide.pdf)
4. Enter feedback, categories and keywords as appropriate.
5. Enter **Instructor Notes** if required.
6. Click **Submit**.

### What the file response question will look like to students:

How would you promote good hygiene in biology laboratories? Use a poster to illustrate your ideas.

Attach File

## Fill In Multiple Blanks

Fill in Multiple Blanks makes a statement, but leaves out key words that the student will supply.

1. From **Create Question** select **Fill in Multiple Blanks**.
2. Enter a short title and the question text or statement specifying up to ten variables in square brackets.  
Note: Variables must be letters, numbers (0-9), periods, hyphens or underscores. No spaces are allowed in variable names. An error will occur if duplicate variables are attempted.

**✳ Question Text**

Rich text editor toolbar with options for Paragraph, Arial, 3 (12pt), Bold, Italic, Underline, Text Color, Background Color, Bulleted List, Numbered List, Indent, Outdent, Link, Unlink, Table, Table of Contents, Undo, Redo, Spell Check, and HTML/CSS options.

A precipitation reaction between Ag and Cl will form [x].

While the formula for burning [y] can be denoted:  $\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$

3. Select to **Allow Partial Credit** if desired.
4. Click **Next**.
5. On the new screen, your question/statement is displayed so that you can enter the answers to the blanks in your question/statement. If you need to modify your base statement at this point, click **Previous**.
6. Select the **Number of Answers** possible for the first variable in the question/statement.  
Note: This question type relies on perfect spelling to be graded correctly so if spelling variants exist for the correct answer you may wish to enter all variants.
7. Enter the possible answers for the other variables within the question text. Multiple responses for each variable may be permitted.

**ANSWERS FOR: X**

Number of Answers:

✳ Answer 1    Case Sensitive

✳ Answer 2    Case Sensitive

8. Click **Next**.
9. Enter feedback, categories and keywords as appropriate.
10. Enter **Instructor Notes** if required.
11. Click **Submit**.

### What the fill in the multiple blanks question will look like to students:

A precipitation reaction between Ag and Cl will form

While the formula for burning  can be denoted:  $\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}$

## Fill in the Blank

Fill in the Blank makes a statement, but leaves out a key word that the student will supply.

1. From Create Question select **Fill in the Blank**.
2. Enter a short title and the question text or statement.
3. Select the **Number of Answers** possible for the blank in the question/statement.  
Note: This question type relies on perfect spelling to be graded correctly so if spelling variants exist for the correct answer you may wish to enter all variants.
4. Enter the possible answers. Multiple responses may be permitted e.g. 10 or ten.
5. Enter feedback, categories and keywords as appropriate.
6. Enter **Instructor Notes** if required.
7. Click **Submit**.

**What the fill in the blank question will look like to students:**

<p>A precipitation reaction between Ag and Cl will form <input type="text"/>.</p> <p>While the formula for burning <input type="text"/> can be denoted: <math>\text{CH}_4 + 2\text{O}_2 \rightarrow \text{CO}_2 + 2\text{H}_2\text{O}</math></p>
--

## Hot Spot

An image is presented along with a statement. The student is asked to identify a certain element ('Hot Spot') within the image which matches the question requirements.

The student clicks the area on the image they want to select.

A **Clear** button is available if the student wants to change their mind and select a different area within the image.

1. From **Create Question** select **Hot Spot**.
2. Enter a short title and the question text or statement.
3. Use the **Browse My Computer** or **Browse Content Collection** button to locate the image file.
4. Click **Next**.
5. Click and drag the mouse over the area in the image you wish to specify as the Hot Spot (i.e. the desired area for students to click).  
If you make an error, click **Clear** below the image and re-specify the area.
6. Enter feedback, categories and keywords as appropriate.
7. Enter **Instructor Notes** if required.
8. Click **Submit**.

**What the hot spot question will look like to students:**

(See image on right.)



## Jumbled Sentence

Jumbled sentence questions will ask a student to complete a statement by selecting options from drop down menus. The number of options that appear in the drop down can exceed the number of items needed to fill the gaps.

Example statement: When you are preparing to use a chemistry laboratory you must first \_\_\_\_\_, then \_\_\_\_\_ and finally \_\_\_\_\_.

1. From **Create Question** select **Jumbled Sentence**.
2. Enter the *Question Text*, putting square brackets around each variable to be selected.  
Note: Variables must be letters, numbers (0-9), periods, hyphens or underscores. No spaces are allowed in variable names. An error will occur if duplicate variables are attempted.

**✱ Question Text**

Rich text editor toolbar with options for Paragraph, Arial, 3 (12pt), and various text formatting tools.

When you are preparing to use a chemistry laboratory you must first [x], then [y] and finally [z].

3. Click the check box if *partial credit* is allowed.
4. Enter the answers that are to appear in the drop down menus. Up to 20 answers may be selected.  
Note: The same answers will appear in each drop down. Answers will appear in the order you type them. There may be more answers than drop downs *i.e.* some answers may not be used.
5. Click **Next**.
6. Enter the correct answers by selecting them from the drop down menus in the example question.

When you are preparing to use a chemistry laboratory you must first  , then  and finally .

7. Enter feedback, categories and keywords as appropriate.
8. Enter **Instructor Notes** if required.
9. Click **Submit**.

### What the jumbled sentence question will look like to students:

When you are preparing to use a chemistry laboratory you must first  , then  and finally .

have a party

wear protective clothing

clean up after yourself

bring your lunch

book the laboratory

## Matching

Matching questions asks students to pair items in one column to items in another column. There can be different numbers of items in the columns to make it more difficult. Partial credit is allowed by default.

1. From **Create Question** select **Matching**.
2. Enter a short title and the question text or statement describing the terms you wish to match.
3. Select the preferred **Partial Credit** and **Answer Numbering** settings.
4. Select the number of questions you want to use.
5. Enter the 'questions' and 'answer' in the boxes provided.
6. If you would like some additional answers to make the correct answers more difficult to guess, click **Add unmatched answer choices** and select the desired number. Enter the answer text.
7. The answer order defaults to *Manual* and displays the answers in the order they were entered. You have the choice to manually rearrange the order (drag answers into the desired order), else click the *Randomly* button to let the LMS select the order.
8. Enter feedback, categories and keywords as appropriate.
9. Enter **Instructor Notes** if required.
10. Click **Submit**.

### What the matching question will look like to students:

Match the following AFL teams with their mascot.

- ▾ Essendon	A. Bombers
- ▾ Collingwood	B. Dockers
- ▾ Gold Coast	C. Hawks
- ▾ Fremantle	D. Magpies
	E. Suns
	F. Swans

## Multiple Answer

Multiple answer questions are very similar to multiple choice questions (below) except that there may be more than one correct answer.

1. From **Create Question** select **Multiple Answer**.
2. Enter a short title and the question text or statement.
3. Select the number format to be used, orientation of the question (vertical or horizontal), partial credit, and whether the answers should appear in random order.
4. Select the number of answers which this multiple choice question will use. If you want to use fewer than four answers, this may be selected by clicking the *Remove* button next to one or more of the default entries.
5. In the answer area, enter the correct and incorrect answers in the desired order. On completion of a test/survey, the feedback will appear for the student if you have allowed feedback options for that test/survey.



6. Indicate the correct answers by clicking the radio button that is positioned to the left of each correct answer.
7. Enter feedback, categories and keywords as appropriate.
8. Enter **Instructor Notes** if required.
9. Click **Submit**.

**What the multiple answer questions will look like to students:**

Newton's three famous laws of motion include these concepts (select three):

- Speed
- Velocity
- Mass
- Vector
- Energy
- Gravity

## Multiple Choice

Select the single correct answer from those offered.

1. From *Create Question* select **Multiple Choice**.
2. Enter a short title and the question text or statement.
3. Select the number format to be used, orientation of the question (vertical or horizontal), partial credit, and whether the answers should appear in random order.
4. Select the number of answers which this multiple choice question will use. If you want to use fewer than four answers, this may be selected by clicking the *Remove* button next to one or more of the default entries.
5. In the answer area, enter the correct and incorrect answers in the desired order. On completion of a test/survey, the feedback will appear for the student if you have allowed feedback options for that test/survey.
6. Indicate the correct answer by clicking the radio button that is positioned at the top left of the correct answer.
7. Enter feedback, categories, keywords, and instructor notes as appropriate.
8. Enter **Instructor Notes** if required.
9. Click **Submit**.

**What the multiple choice question will look like to students:**

Who is credited as being the first person to reach the South Pole?

- Frederick Cook
- Roald Amundsen
- Robert E. Peary
- Ernest Shackleton
- Edmund Hilary

## Opinion Scale/Likert

Opinion scale/Likert questions may be used to gauge levels of agreement, likelihood, acceptance, importance or frequency.

1. From **Create Question** select **Opinion Scale/Likert**.
2. Enter a short title and a statement with which respondents may agree or disagree (e.g. 'I like chocolate').
3. Select the preferred **Answer Numbering** and **Answer Orientation** settings.
4. Select the boxes for **Allow Partial Credit** and **Show Answers in Random Order** as required.
5. Amend any or all of the six automatically provided responses to suit the statement text.
6. To remove any response (if required), click the **Remove** button associated with that response.
7. Enter feedback, categories and keywords as appropriate.
8. Enter **Instructor Notes** if required.
9. Click **Submit**.

### What the opinion scale / Likert question will look like to students:

All chemistry students should have basic first aid training.

1. Strongly Agree
  2. Agree
  3. Neither Agree nor Disagree
  4. Disagree
  5. Strongly Disagree
  6. Not Applicable

## Ordering

Ordering questions allow you to provide a statement and options that students will be asked to put in order.

1. From **Create Question** select **Ordering**
2. Enter Question Text. This will most likely be in the form of a statement.
3. Enter the possible answers in their correct order.  
You can increase the number of answers via the drop down at the top of the Answers section.
4. Click **Next**.
5. Correct answer order is show in the left column; display order is shown in the right column. Put your cursor on an item in the right column and drag into the desired order for students to see.

**ANSWERS**

*Set the display order for the answer items.*

Correct Order	Display Order
<b>Position: 1</b> Write a script	Correct Position: 5 Promote your video
<b>Position: 2</b> Scout out a location	Correct Position: 1 Write a script

6. Enter feedback, categories and keywords as appropriate.
7. Enter **Instructor Notes** if required.
8. Click **Submit**.

### What the ordering question will look like to students:

(See image on right.)

Select the correct order for creating a video.

Promote your video  
 Write a script  
 Scout out a location  
 Take your video  
 Edit your video

## Quiz Bowl

Questions may be presented in the format of the Jeopardy!® television quiz show. A statement is presented and students must respond in the form of a question which could generate that statement (e.g. 'Australia's leading university' could be an answer to the question 'What is the University of Melbourne?'). Students would be expected to answer the statement with a matching question). Due to trademark restrictions, LMS refers to these questions as Quiz Bowl rather than Jeopardy!® style.

1. From **Create Question** select **Quiz Bowl**.
2. Enter the question in the form of a statement. For example, 'This educational institution commenced teaching in 1854'.
3. Select **Allow partial credit** if students can receive credit even for answers not phrased in the form of a question. Enter the % of credit allowed for this.
4. Include or remove the interrogatives that must appear in the student response. In this example, 'Who is the University of Melbourne?' and 'What is the University of Melbourne?' may be accepted though 'Where is the University of Melbourne?' would not. Four possible interrogatives are automatically provided – remove or amend these as required.

**INTERROGATIVES**

*Enter one or more correct interrogatives that must be included in the student response.*

Number of Interrogatives

Interrogative 1

Interrogative 2

5. Indicate the number of accepted answer phrases which must follow the possible interrogatives and enter these phrases into the text boxes provided. In this example, 'is the University of Melbourne', 'is University of Melbourne' and 'is Melbourne University' are acceptable phrases. Repeating the interrogative is not required.

**ANSWER PHRASES**

*Add answers for all possible correct answer phrases.*

Number of Answer Phrases

\* Answer Phrase 1

\* Answer Phrase 2

\* Answer Phrase 3

6. Enter feedback, categories and keywords as appropriate.
7. Enter **Instructor Notes** if required.
8. Click **Submit**.

### What the quiz bowl question will look like to students:

This educational institution commenced teaching in 1854.

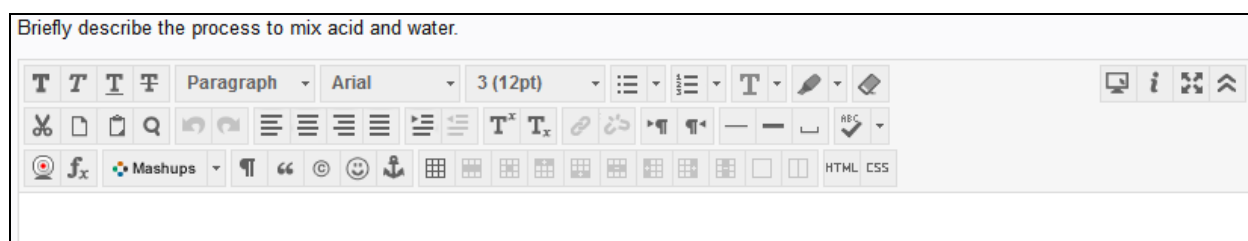
## Short Answer

Short answer questions are similar to essay questions, but shorter. The short answer question must be manually marked by teaching staff before results for the entire test will be available to students.

1. From **Create Question** select **Short Answer**.
2. Enter the **Question Text**.
3. Select the number of lines that this short answer should allow.
4. Enter an example *Answer* (optional) to give students and markers an indication of the style of answer you are after. Note: The example answer will be available to students taking the test. Do not enter the correct answer here.
5. Click **Add Rubric** if the use of a rubric is required by staff to mark this question. For more information on rubrics see the Blackboard Rubrics guide: [http://www.lms.unimelb.edu.au/user\\_guides/rubrics\\_guide.pdf](http://www.lms.unimelb.edu.au/user_guides/rubrics_guide.pdf)
6. Enter feedback, categories and keywords as appropriate.
7. Enter **Instructor Notes** if required.
8. Click **Submit**.

### What the short answer question will look like to students:

Briefly describe the process to mix acid and water.



The screenshot shows a rich text editor interface. At the top, there is a text input field containing the question text: "Briefly describe the process to mix acid and water." Below the input field is a comprehensive toolbar with various icons for text formatting (bold, italic, underline, strikethrough), alignment (left, center, right, justified), list creation (bulleted, numbered), indentation, and other editing functions. The toolbar also includes options for font face (Arial) and size (3 (12pt)). On the right side of the toolbar, there are icons for help, refresh, and a close button. Below the toolbar is a large, empty text area for the student's answer.

## True/False

This is very similar to the Either/Or question type, but is limited to True/False questions.

1. From **Create Question** select **True/False**.
2. Enter a question which may be answered as 'true' or 'false'.
3. Select the preferred **Answer Orientation** settings.
4. Indicate the correct response by selecting True or False.
5. Enter feedback, categories and keywords as appropriate.
6. Enter **Instructor Notes** if required.
7. Click **Submit**.

### What the true / false question will look like to students:

Although the colour of the logo and branding are currently blue, the origin colours of the University were red and white.

- True  
 False

Please report any errors or omissions in this guide to  
[lms-guides@lists.unimelb.edu.au](mailto:lms-guides@lists.unimelb.edu.au)

The University of Melbourne has used its best endeavours to ensure that material contained in this publication was correct at the time of printing. The University gives no warranty and accepts no responsibility for the accuracy or completeness of information and the University reserves the right to make changes without notice at any time in its absolute discretion. Users of this publication are advised to reconcile the accuracy and currency of the information provided with the relevant department of the University before acting upon or in consideration of the information. Copyright in this publication is owned by the University and no part of it may be reproduced without the permission of the University