**Different Types of Test/Survey Questions**

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**Calculated formula**

A Calculated Formula question contains a formula, the variables of which can be set to change for each user. The variable range is created by specifying a minimum value and a maximum value for each variable. Answer sets are randomly generated. The correct answer can be a specific value or a range of values. Partial credit may be granted for answers falling in a range.

Since this question allows the Instructor to randomize the value of variables in an equation, it may be useful when creating math drills to when giving a test when Students are seated close together.

Adding a calculated question to an Assessment is a three-step process:

- Create the question and formula.
- Define the values for the variables.
- Confirm the variables and answers.
Create the Question and Formula

The question is the information presented to Students. The formula is the mathematical expression used to find the answer. Be sure to enclose variables in square brackets.

Follow these steps to create the question and formula:

1. Open the Test Canvas for an assessment.
2. Select Calculated Formula from the question type drop-down list. Click Go.
3. Enter the information that will display to Students in the Question Text box. Surround any variables with square brackets, for example, \([x]\). The value for this variable will be populated based on the formula. In the example \([x] + [y] = z\), \([x]\) and \([y]\) will be replaced by values when shown to Students. Students would be asked to define \(z\). Variables should be composed of alphabets, digits (0-9), periods (.), underscores (_) and hyphens (-). All other occurrences of the opening rectangular brace (“[”) character should be preceded by the back-slash (“\”) character. Variable names must be unique and cannot be reused.
4. Define the formula used to answer the question in the Formula box. For example, \(x + y\). Operations are chosen from the buttons across the top of the Formula box.
5. Assign a point value for the question. Several other options may appear based on the Creation Settings.
6. Set the Answer Range. This defines which submitted answers will be marked correct. If the exact value must be entered, enter 0 and select Numeric from the drop-down list. If the answer can vary, enter a value and select Numeric or Percent. Numeric will mark every answer as correct that falls within a range of plus or minus the Answer Range from the exact answer. Percent will mark every answer as correct that falls within a percentage of plus or minus the Answer Range from the exact answer.
7. Select Yes or No for Units Required. If Yes, correct answers must include the correct unit of measurement, for example, Seconds or Grams. Enter the correct unit of measurement and choose if the unit of measurement is case sensitive. The answer may still receive partial credit if the unit of measurement is not correct. Enter a percentage in Unit Points Percentage. The unit of measurement will account for that percentage of the total credit.
8. Define partial credit for answers that fall outside the correct Answer Range. Select Yes or No for Allow Partial Credit. Enter a value for the Partial Credit Points Percentage. Now, set the range for partial credit by entering a value and selecting Numeric or Percent for the Partial Credit Range. Answers falling within this range will receive a portion of the total points possible for the question equal to the Partial Credit Points Percentage.
9. When finished with the question, click Continue to proceed.

Define the Variables

The next page in the three-step process defines the variables in the formula. Follow these steps to define the variables.

1. For each variable, set a minimum and a maximum value.
2. For each variable, select a decimal place using the drop-down list that appears in the Decimal Places column.
3. Under Answer Set Options, select the Decimal places for answer from the drop-down list. Users must provide the correct answer to this decimal place.
4. Enter the number of different Answer Sets. The Answer Sets will be randomized so that different Students will be presented with a different set of variables.
5. Click Continue to proceed. Alternatively, Click Back to return to the previous page or click Calculate to reset the variables after making a change.
Confirm the Variables and Answers

The last step in the process displays the Answer Sets in a table. For each set, each variable and the answer are displayed. Make any changes or remove any unwanted answer sets and click **Calculate**.

Below the Answer Sets are the standard options for adding feedback and metadata to questions.

**Calculated numeric** *(Back to the top)*

This question resembles a fill-in-the-blank question. The user enters a number to complete a statement. The correct answer can be a specific number or within a range of numbers. Please note that the answer must be numeric, not alphanumeric. For example, in a Geography class the Instructor may ask for the estimated population of a specific city.

**Create a Calculated Numeric Response Question**

Follow these steps to create a Numeric Response question.

1. Open the Test Canvas for an assessment.
2. Select **Numeric** from the question type drop-down list. Click **Go**.
3. Enter the **Question Text**.
4. Assign a **Point Value**. Complete any advanced features for the question as defined by the Creation Settings of the assessment.
5. Enter the **Correct Answer**. This value must be a number.
6. Enter the **Answer Range**. If the answer must be exact for Students to receive credit, enter 0. Any value that is less than or more than the **Correct Answer** by less than the **Answer Range** value will be marked as correct.
7. Complete the question by adding optional feedback for correct and incorrect answers. Assign the question metadata.
8. Click **Submit** to add the question to the assessment.

**Either/or** *(Back to the top)*

Users are presented with a statement and asked to respond using a selection of pre-defined two-choice answers, such as:

- Yes/No
- Agree/Disagree
- Right/Wrong

This question type is very useful in Surveys to gage user's opinions. It is a slight variation on the True/False question type, except more descriptive and meaningful answers may be used.

**Create an Either/or Question**

Follow these steps to create an either/or question.

1. Open the Test Canvas for an assessment.
2. Select **either/or** from the question type drop-down list. Click **Go**.
3. Enter the Question Text.
4. Assign a **Point Value**.
5. Click the **Correct Answer** and select a positive value and a negative value from the drop-
down lists.

6. Complete the question by adding optional feedback for correct and incorrect answers. Assign
the question metadata.

7. Click **Submit** to add the question to the assessment.

**Essay** *(Back to the top)*  
Essay questions require the Instructor to provide Students with a question or statement. Students are
given the opportunity to type and/or cut and paste an answer into a text field. These types of questions
must be graded manually. Essay questions may use the Math and Science Notation Tool.

- **Step 1:** Type (Copy/Paste) the question in the question box
- **Step 2:** Enter Point Value
- **Step 3:** Click **Submit**

**File Response** *(Back to the top)*  
Users upload a file from the local drive or from the Content Collection as the answer to the question.
This type of question is graded manually. This question type is a good option if the Instructor would
like Students to work on something before a test and submit it with a test, or if the response to the
questions is expected to take a long time to read. Submitting the answer this way allows the Instructor
to read and grade the question without worrying that the browser will time out.

**Note:** Short Answer and Essay questions may also be used for questions that may require a
shorter answer from a Student. These questions types must also be manually graded.

Other Question types that allow user input are File Response, Fill in the Blank, and Fill in Multiple
Blank.

**Fill in Multiple Blanks** *(Back to the top)*  
This question type builds on fill-in-the-blank questions with multiple fill in the blank responses that can
be inserted into a sentence or paragraph. Separate sets of answers are defined for each blank. This
question type may be used if there are multiple variables, such as "What color is the Italian flag?" This
question type is also useful in foreign language classes. In this case, the identifier and adjective may
be left blank in a sentence, so as not to give away the gender of an object.

**Create a Multiple Fill-in-the-Blanks Question**

Follow these steps to create a Fill In Multiple Blanks question.

1. Open the Test Canvas for an assessment.

2. Select **Fill in Multiple Blanks** from the question type drop-down list. Click **Go**.

3. Enter the Question Text. Enter each blank as a variable surrounded by square brackets. For
example, William [blank_1] wrote Romeo and [blank_2]. Variables should be composed of
alphanumerics, periods (.), underscores (_) and hyphens (-). All other occurrences of
the opening rectangular brace ("[]") character should be preceded by the back-slash (\) character. Variable names must be unique and cannot be reused.

4. Assign a **Point Value**. Complete any advanced features for the question as defined by the
Creation Settings of the assessment.

5. Click **Next**.

6. A list of variables found in the question will appear. Enter one or more correct answers for
each variable.

7. Complete the question by adding optional feedback for correct and incorrect answers. Assign
the question a category or other metadata.
8. Click **Submit** to add the question to the assessment.

**Fill in the Blank** *(Back to the top)*

Fill in the Blank answers are evaluated based on an exact text match. It is important to keep the answers simple and limited to as few words as possible. Answers are not case sensitive, but are marked based on spelling.

Consider the following tips when creating Fill in the Blank questions and answers:

- Provide answers that allow for common spelling errors, for example: there and their
- Provide answers that allow for abbreviations or partial answers, for example Ben Franklin, Benjamin Franklin, Mr. B. Franklin, Franklin.
- Create the question that indicates to Students the best way to answer the question, for example: ______, is pictured on the one hundred dollar bill. Avoid using nicknames or abbreviations in your answer.
- Keep answers limited to one or two words to avoid mismatched answers due to extra spaces or order of answer terms. For example if the question is *Ben’s favorite colors are _____* and the correct answer is *red and blue* but the Student types *blue, red*, the answer will be marked incorrect.

**Step 1:** Type (Copy/Paste) the question in the question box  
**Step 2:** Enter Point Value  
**Step 3:** Choose the number of possible correct answer (EX: 3 = Red, red, RED)  
**Step 4:** Type (Copy/Paste) answers in the answer boxes  
**Step 5:** Click Submit

**Hot Spot**

Users indicate the answer by marking a specific point on an image. A range of pixel coordinates is used to define the correct answer. Hot Spot refers to the area of an image that, when selected, yields a correct answer. The following are some examples of uses for this type of question:

- Anatomy - to locate different parts of the body
- Geography - to locate areas on a map
- Foreign Language - to select different articles of clothing

**Create a Hot Spot Question**

Follow these steps to create a Hot Spot question.

1. Open the Test Canvas for an assessment.  
2. Select Hot Spot from the question type drop-down list. Click Go.  
3. Enter the Question Text.  
4. Assign a Point Value. Complete any advanced features for the question as defined by the Creation Settings of the assessment.  
5. Enter the path to the file in the Attach Local File field under the Upload Image heading. Make sure to upload the image in the correct field. Remember that Creation Settings allows uploading a file as part of the Question Text.  
6. Click Next. The uploaded image will appear.  
7. Click the mouse and drag it to create a rectangle over the correct answer. When Students select a point within the rectangle, they will receive credit for a correct answer. The area of the hot spot is defined by pixels. Click Clear to remove the hot spot and select a new hot spot.  
8. Complete the question by adding optional feedback for correct and incorrect answers. Assign the question a category or other metadata.  
9. Click Submit to add the question to the assessment.
Jumbled Sentence  [Back to the top]

Users are shown a sentence with a few parts of the sentence as variables. The user selects the proper answer for each variable from drop-down lists to assemble the sentence. Only one set of answers is used for all of the drop-down lists. This type of question may be useful when teaching about proper grammatical order in a sentence, such as the location of a noun, verb, or adjective.

Create a Jumbled Sentence Question

Follow these steps to create a Jumbled Sentence question.

1. Open the Test Canvas for an assessment.
2. Select **Jumbled Sentence** from the question type drop-down list. Click **Go**.
3. Enter the Question Text. Enter each blank as a variable surrounded by square brackets. Variables should be composed of alphabets, digits (0-9), periods (.), underscores (_) and hyphens (-). All other occurrences of the opening rectangular brace (“[”) character should be preceded by the back-slash (“\”) character. Variable names must be unique and cannot be reused.
4. Assign a **Point Value**.
5. Select the **Number of Answers** and enter a value for each. These values will appear in a drop-down list for each variable when users view the question. Enter the answers in the order they should display to Students in the drop-down.
6. Click **Next**.
7. The question will appear with the drop-down lists in place of the variables. Select the correct answers.
8. Complete the question by adding optional feedback for correct and incorrect answers. Assign the question a category or other metadata.
9. Click **Submit** to add the question to the assessment.

Matching  [Back to the top]

Matching questions allow Students to pair items in one column to items in another column. Instructors may include a different numbers of questions and answers in a Matching question.

Students will be granted partial credit for matching questions if they answer part of the question correctly. For example, if the question is worth eight points and the student gives the correct answers for half of the matches, they will receive four points.

**Step 1:** Type (Copy/Paste) the question in the question box  
**Step 2:** Enter Point Value  
**Left Side - Permanent**  
**Step 3:** Choose the number of Left side entries called questions (EX: 4 = A,B,C,D)  
**Step 4:** Type (Copy/Paste) the question in the proper question boxes  
**Right Side - Matches**  
**Step 5:** Choose the number of Left side entries called questions (EX: 4 = A,B,C,D)  
**Step 6:** Type (Copy/Paste) answers in the “mixed up order” in the answers boxes (EX: D,B,C,A)  
**Step 7:** Click Continue  
**Step 8:** Provide the correct match using the drop down box  
**Step 9:** Click Submit
Multiple Answer  (Back to the top)
Multiple answer questions allow users to choose more than one answer. Partial credit is not given for partially correct answers, but instructers may manually change the number of points.

**Step 1:** Type (Copy/Paste) the question in the question box  
**Step 2:** Enter Point Value  
**Step 3:** Choose the number of possible correct answer (EX: 4 = A,B,C,D)  
**Step 4:** Type (Copy/Paste) answers in the proper answer boxes  
**Step 5:** Check the box(es) beside the correct answer(s)  
**Step 6:** Click Submit

Multiple Choice  (Back to the top)
Multiple-choice questions allow the users a multitude of choices. In multiple-choice questions, users indicate the correct answer by selecting a button. The number of answer choices is limited to 20.

**Step 1:** Type (Copy/Paste) the question in the question box  
**Step 2:** Enter Point Value  
**Step 3:** Choose the number of Possible correct answer (EX: 4 = A,B,C,D)  
**Step 4:** Type (Copy/Paste) answers in the proper answer boxes  
**Step 5:** Click on the button beside the Correct answer  
**Step 6:** Click Submit

Opinion Scale/Likert  (Back to the top)
Question type based on a rating scale designed to measure attitudes or reactions. This type of question is popular to use in surveys in order to get a comparable scale of opinion. Users indicate the multiple-choice answer that represents their attitude or reaction. When the instructor creates an opinion scale question, six answer fields are pre-populated with the following answers:

- Strongly Agree  
- Agree  
- Neither Agree nor Disagree  
- Disagree  
- Strongly Disagree  
- Not Applicable

**Create an Opinion Scale/Likert Question**  
Follow these steps to create an Opinion Scale/Likert question.

1. Open the Test Canvas for an assessment.  
2. Select **Opinion Scale** from the question type drop-down list. Click **Go**.  
3. Enter the Question Text.  
4. Assign a **Point Value**.  
5. Determine how the answers will be displayed by selecting **Answer Numbering** and **Answer Orientation**.  
6. Check **Allow Partial Credit** and options will appear under each answer to assign a percentage of points possible.
7. The Answer fields are pre-populated with values on a Likert scale. Select a correct answer and change any of the answer values.

8. Complete the question by adding optional feedback for correct and incorrect answers. Assign question metadata.

9. Click Submit to add the question to the assessment.

Ordering (Back to the top)
Ordering questions require Students to provide an answer by selecting the correct order of a series of items.

Students will be granted partial credit for ordering questions if they answer part of the question correctly. For example, if the question is worth eight points and the student gives the correct order for half of the items, they will receive four points

Step 1: Type (Copy/Paste) the question in the question box
Step 2: Enter Point Value
Step 3: Choose the number of possible correct answer (EX: 4 = A,B,C,D)
Step 4: Type (Copy/Paste) the correct order in the proper answer boxes
Step 5: Click Continue
Step 6: Order the question in the “mixed up” order to display
Step 7: Click Submit

Quiz Bowl (Back to the top)
Quiz Bowl questions are a way to add fun and creativity to tests, such as self-assessments or in-class contests. The user is shown the answer and responds by entering the correct question into a text box. An answer must include a phrase and a question word, such as whom, what, or where, to be marked as correct. For example, the question may be "The person who invented the cotton gin", with the answer being "Who is Eli Whitney?" Partial credit may be given if the question word is not included in the answer.

Create a Quiz Bowl Question

Follow these steps to create a Quiz Bowl question.

1. Open the Test Canvas for an assessment.
2. Select Quiz Bowl from the question type drop-down list. Click Go.
3. Enter the Question Text.
4. Assign a Point Value.
5. Click the Allow Partial Credit and enter a percentage of credit. This is the amount of credit that will be given to answers that include the correct phrase but do not include the correct interrogative word.
6. Select the Number of Interrogative Words. Enter each acceptable interrogative word in the fields below. One of these words must appear in the response for the Student to receive full credit.
7. Select the Number of Answer Phrases. Enter each acceptable phrase into the fields below. One of these phrases must appear in the response for the Student to receive any credit.
8. Complete the question by adding optional feedback for correct and incorrect answers. Assign question metadata.
9. Click Submit to add the question to the assessment.
Short Answer *(Back to the top)*

Short Answer questions are similar to essay questions. The length of the answer can be limited to a specified number of rows in the text box. Essay questions, Short Answer questions must be graded manually.

The number of rows is meant as a guideline when entering an answer; it does not impose an absolute limit on answer length.

**Create a Short Answer Question**

Follow these steps to create a short response question.

1. Open the Test Canvas for an assessment.
2. Select **Short Answer** from the question type drop-down list. Click **Go**.
3. Enter the Question Text.
4. Assign a **Point Value**.
5. Select a number of rows for the answer.
6. Enter an example of a correct answer to assist Graders.
7. Complete the question by adding optional feedback for correct and incorrect answers. Assign question metadata.
8. Click **Submit** to add the question to the assessment.

True/False *(Back to the top)*

True/False questions allow the user to choose either true or false. True and False answer options are limited to the words True and False. The True/False questions provide an area for the Instructor to type the question and designate the correct answer.

**Step 1:** Type (Copy/Paste) the question in the question box  
**Step 2:** Enter Point Value  
**Step 3:** Click on the button beside the correct answer (True or False)  
**Step 4:** Click Submit

From a Question Pool or Assessment *(Back to the top)*

The pools allow Instructors to store questions for repeated use and add questions that have been created in other Tests or Pools. Pools are course-specific although pools from other courses can be imported through the Pool Manager.

**Step 1:** Choose Test/Pool  
**Step 2:** Choose type of questions  
**Step 3:** Click Search  
**Step 4:** **Check the questions you want to use**  
**Step 5:** Click Submit  
**Step 6:** Click on Modify beside each question, enter the point value and click submit.  
**Step 7:** Repeat steps 1 -6 for each pool/test and/or page.

**Instructors may select 20 questions at a time from a pool or another assessment to add to a test. If more than 20 questions are found during the search (multiple pages), instructors may only select and submit questions from one page at a time.**
Upload Questions  
Instructors may import files containing questions into an Assessment.

The questions in the uploaded file must match the file structure explained below. The file may include Essay, Ordering, Matching; Fill in the Blank, Multiple Choice, Multiple Answer, and True/False questions.

**Note:** Files with questions may be imported into Pools and Surveys. When uploaded to a Survey, the correct/incorrect answer Assignment is ignored, but the file must follow the same format as described for Tests and Pools.

Please note that this feature is not available in Blackboard Learning System – Basic Edition.

The following information is important to note when importing Assessment questions:

- Once uploaded, questions can be manipulated as other questions created within the Assessment.
- If there is an error in a question within a file, only the question with an error will fail to upload. Questions without errors will upload successfully.
- The system does not check for duplicate questions. It is up to the Instructor to manage this aspect of the Assessment questions.

**Find this page**

Select **Upload Questions** from the Test Canvas.

**Function**

Click **Browse** and locate the file that is to be uploaded to this Assessment. All of the questions in this file will be added to the Assessment.

**Point Value**

When questions are imported they automatically default to the point value set in Creation Settings. If a default value has not been chosen in Creation Settings questions will automatically have a point value of ‘0’ and Instructors must then enter a point value for each question.

**File Structure**

Questions in the file must conform to a specific structure to be uploaded to an Assessment successfully. A tab separates each field in the file. Each row is a separate question.

<table>
<thead>
<tr>
<th><strong>Question Type</strong></th>
<th><strong>Structure</strong></th>
</tr>
</thead>
</table>
| Multiple Choice   | ‘MC’ TAB question text (TAB answer text TAB ‘correct’ or ‘incorrect’)
Text within () may be repeated for each of the answers that are part of the Multiple Choice question. The maximum number of answers is 20. |
| Multiple Answer    | ‘MA’ TAB question text (TAB answer text TAB ‘correct’ or ‘incorrect’)
Text within () may be repeated for each of the answers that are part of the Multiple Answer question. The maximum number of answers is 20. |
<p>| True/False        | ‘TF’ TAB question text TAB ‘true’ or ‘false’ |</p>
<table>
<thead>
<tr>
<th>Question Type</th>
<th>Structure</th>
</tr>
</thead>
</table>
| Essay                 | ‘ESS’ TAB question text TAB [example]  
Text within [ ] is optional. The Instructor may choose to add a sample essay question or leave this blank.                                                                                           |
| Ordering              | ‘ORD’ TAB question text (TAB answer text)  
Text within () may be repeated for each of the answers that are part of the Ordering question. The maximum number of answers is 20.  
The order entered in the file is the correct order. The system will randomly order the answers.                              |
| Matching              | ‘MAT’ TAB question text (TAB answer text TAB matching text)  
Text within () may be repeated for each of the answers that are part of the Matching question. The maximum number of answers is 20.  
The system will randomly order the answers and their question.  
When uploading a matching question, there must be a one-to-one relationship between questions and answers. If not, correct answers may be marked incorrect if more than one answer has the same value. |
| Fill in the Blank     | ‘FIB’ TAB question text (TAB answer text)  
Text within () may be repeated for each of the answers that are part of the Fill in the Blank question. The maximum number of answers is 20.                                                   |
| File Response         | ‘FIL’ TAB question                                                                                                                                                                                       |
| Numeric Response      | ‘NUM’ TAB question TAB answer TAB [optional] tolerance                                                                                                                                                   |
| Short Response        | ‘SR’ TAB question TAB sample_answer                                                                                                                                                                        |
| Opinion/Likert Scale | OP TAB question                                                                                                                                                                                          |
| Multiple Fill-in-the-Blank | FIB_PLUS TAB question TAB variable1 TAB answer1 TAB answer2 TAB variable2 TAB answer3  
The format consists of a list of variable-answers where each variable-answer is composed of the variable name and a list of correct answers for that variable. Variable-answers are delimited by an empty field. |
| Jumbled Sentence      | JUMBLED_SENTENCE TAB question TAB choice1 TAB variable1 TAB choice2 TAB variable2 TAB choice3 TAB variable2 TAB answer2  
The format consists of a list of choices-answers where each choice-answer consists of the choice followed by the list of variables for which that choice is the correct answer. An empty field indicates the end of a choice answer. A choice immediately followed by an empty field indicates that that choice is not the correct answer for any variable. |
| Quiz Bowl             | QUIZ_BOWL TAB question TAB question_word1 TAB question_word2 TAB phrase1 TAB phrase2  
The format consists of a list of valid question words followed by an empty field and a list of valid answer phrases.                                                                                   |
**Random Block** ([Back to the top](#))

Random Blocks enable the Instructor to use a random selection of questions from another Test or Pool. The Instructor can also select criteria for the questions that are chosen, such as the question type.

**Step 1:** Choose Test/Pool  
**Step 2:** Choose type of questions  
**Step 3:** Enter number of questions to use  
**Step 4:** Enter the point per question  
**Step 5:** Click Import