

- c. Select the **Save** button to save your formula [3].

Formula Definition

Next you'll need to write the formula or formulas used to compute

Formula

- d. Go back to the **Recompute** button in Variable Definitions, click to check the result Canvas calculates.

6. In the **Generate Possible Solutions** field


- Specify the number of possible solutions you want Canvas to generate.
- In the **error margin** field, enter the margin of error for the student's answer. Responses are based on relative error in addition to absolute error. Margins of error can be created as a percentage or as a point value (up to three decimal places).
- Click the **Generate** button to view final answer.

Generate Possible Solutions

Finally, build as many variable-solution combinations as you need for your quiz.

Offer possible value combinations (max 200)

allow an error margin of +/-

 **Tip:** After you click **Generate**, check the list of possible variables and solutions for duplicate values. If you are not satisfied with the set, click **Generate** again to generate a new set.


7. Click the **Update Question** button.

III. Question Group: Randomize a Question

Question groups allow you to place multiple questions within a group for students to answer. You can choose the number of questions that should be answered from the group and how many points to assign each question. Creating a question group randomizes questions within a quiz.

1. In the **Questions** tab, click the **New Question Group** button.

[Details](#)

 **Tip:** Use a descriptive name to help you identify the question group later. For example, if you are grouping your questions by topic and difficulty level, you might want to label your question bank something along the lines of, "Photosynthesis, easy."

2. In the dialogue box, provide a name for the question group [1], the number of questions that students should answer from this group of questions [2], and the number of points each question should carry [3].

Group [1] Pick 1 [2] questions, 1 [3] pts per question

[Link to a Question Bank](#)

Cancel Create Group

NB: If you tell Canvas to pick all the questions in a question group, the result is randomization of the order of the questions.

3. Click the **Create Group** button.

Cancel Create Group

4. Adding questions to the question group

- a. To add individual questions to the group, click the **Add** icon on the top right of the Question Group box.



Then follow the instructions outlined on p. 3 under “Create a Quiz with Individual Questions, Step II: Create Individual Questions.”

- b. You can also **Find Questions** from an existing question bank and add them to the question group. See follow the instructions outlined on p. 5, under “Create a Quiz with Individual Questions, Step III: Add Existing Individual Questions from Question Bank.”

Question Group Find Questions

5. Click the maroon **Save** button to save and preview the quiz.

Cancel Save & Publish Save

Tip: If you have question banks set up, you can reference questions from a question bank by clicking the Link to a Question Bank link. See Tip on p. 6 for details.

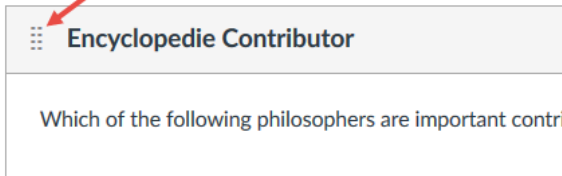
Tip: To change the number of questions to be picked from the group or to change the points assigned, click the **Edit** icon [1]. To delete the question group, click the **Delete** icon [2].



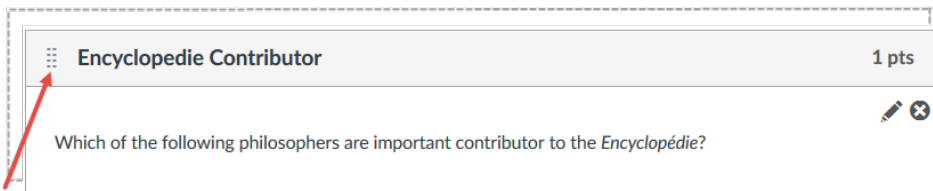
Reordering Individual Questions or Question Groups

Drag-and-drop method:

1. Hover over the drag handle next to the question or group. A pointer icon will appear.

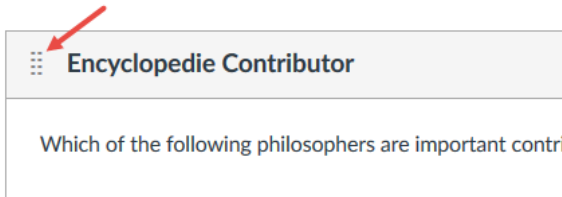


2. Click and drag the question or group to the desired location.



Using the move dialog menu

1. Click the drag handle next to the quiz question or group.



2. In the dialog box, select which question group you want to move the question into [1]; or the new location where you want to place the question [2].

Move Item ×

Where would you like to move **Encyclopedie Contributor**?

Into question group: [1]

-- Top level --

Place: [2]

before Mignon1

before Mignon1

before Group

-- at the bottom --

Cancel Save

3. Click the maroon **Save** button.

Canvas' Built-in Quiz Analytics

Once your quizzes have been published and have at least one submission, you can view quiz statistics via Canvas's built-in analysis tool or download comma separated value (CSV) files. Canvas's built-in analytical tools are valid for quizzes under 100 questions or 1000 attempts.

1. Open a quiz.
2. On the top right, click the **Quiz Statistics** link.

Related Items

 **Quiz Statistics**

 **Moderate This Quiz**


 **Download All Files**


 **SpeedGrader™**






3. On the **Quiz Summary** page under **Quiz Summary** you will see the quiz average score, high score, low score, standard deviation (how far the values are spread across the entire score range), and average time of quiz completion. Below them is the grade distribution in a bar chart.

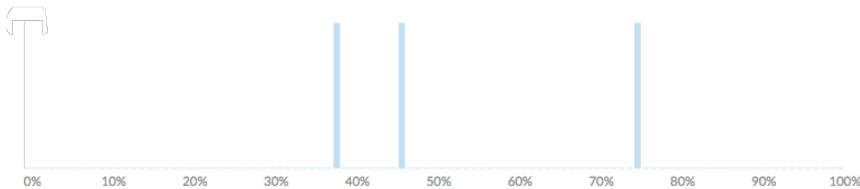
Quiz Summary

Section Filter ▾

 **Student Analysis**

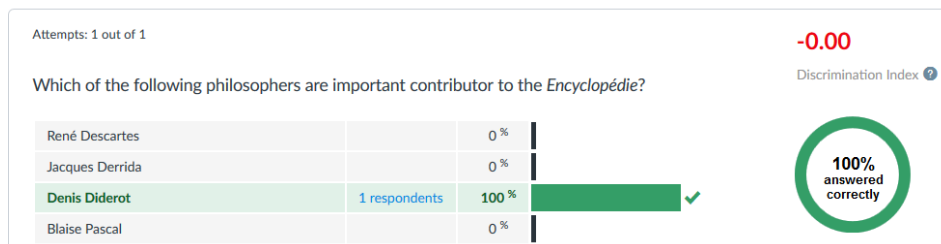
 Item Analysis

 Average Score	 High Score	 Low Score	 Standard Deviation	 Average Time
53%	75%	38%	1.93	08:57





Under **Question Breakdown** you will see detail analytics for each quiz question.


Question Breakdown



- a) Numeric and graphic representation of the total number and total percentage of students who answered the quiz question correctly (green bar with a check mark) and incorrectly (black striped bar). Click the [**x respondents**] link to view the names of the students who selected an answer choice.

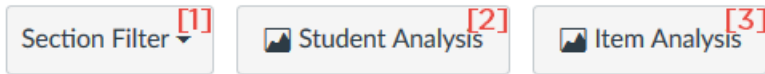
 See also: "Once I publish my quiz, what kinds of quiz statistics are available?"
community.canvaslms.com/docs/DOC-2981

 Tip: If you have more than 10 course sections, generate a Student/Item Analysis report.

 Tip: If a student had multiple assignment attempts, you can view past attempts in SpeedGrader. Quiz stats will only display the kept score for the student (highest, latest, or average score).

- b) **Discrimination Index.** True/False and Multiple Choice quiz questions include an item discrimination index, which attempts to look at a spread of scores and reflect differences in student achievement.

4. To see details of the quiz results:



- a) Use the **Section Filter** drop-down menu at the top right to filter quiz statistics for one of the first 10 sections of your course.
- b) Click the **Student Analysis** button to download a CSV file that tabulates all quiz attempts, answer choices, number of correct and incorrect answers, and total score by students.
- c) Click the **Item Analysis** button to download a CSV file that tabulates
- number of students who answered the quiz,
 - number of students in the top 27%, middle 46%, and bottom 27%,
 - total number of questions in the quiz,
 - number of students who answered correctly and incorrectly,
 - ratio of students who answered correctly and incorrectly,
 - number of students in the top 27%, middle 46%, and bottom 27% who got the question right
 - variance and standard deviation of scores on this question
 - difficulty index
 - alpha score for the whole quiz
 - point biserial of the correct answer
 - point biserial of the first incorrect answer or distractor (followed by the second, etc)

Definition: The **Discrimination Index** measures how well a single question can tell the difference between students who do well on an exam and those who do not.

An ideal discrimination index shows students who scored higher on the quiz getting the quiz question right, students who scored lower on the quiz getting the quiz question wrong, and students in the middle range on either side.

A +0.25 or higher score (green) is considered good. Zero shows all students getting the quiz question either right or wrong.

See also: “Once I publish my quiz, what kinds of quiz statistics are available?”
community.canvaslms.com/docs/DOC-2981

See also: “Quiz Item Analysis PDF” s3.amazonaws.com/tr-learncanvas/docs/CanvasQuizItemAnalysis.pdf

Making Changes, Regrading, Fudge Points, and Using the Moderate Quiz Page

Making Changes

Although you can make changes (adding, deleting, updating questions) to a published quiz, students who have already opened or completed the quiz *will not see any changes you make*.

- If you have to edit a published quiz, you should notify your students of the changes by checking the **Notify users this quiz has changed** box at the bottom of the page near the Save button.

NB: Students will always receive a notification on due date changes whether this box is checked or not.

See also: “Once I publish my quiz, how do I make additional changes?”
community.canvaslms.com/docs/DOC-2977


Tip: You might need to adjust the number of allowed attempts if you want your students to re-take the quiz.

- Quiz data before any change is retained as part of any existing student submissions.
- If only the point value of the quiz is changed, student's submitted quiz will show the update point value, but the current grade *won't change in the Gradebook*.
- If you changed existing quiz questions, you might want to regrade the quiz, add fudge points, or use Moderate Quiz to grant students extra attempts, extra time for timed quizzes.


Regrading

When you make changes to Multiple Choice, True/False, and Multiple Answers questions in a published quiz, Canvas will give you the options for regrading them.

- Quiz regrade only applies to students who have already taken the quiz.
- Adding or removing a question as well as changing the point value for a multiple choice question does not trigger the quiz regrade feature.
- Adding or deleting answers from a true/false question with submissions disables the option to regrade that question.
- Quiz regrade applies only when you re-save the quiz in a 2-step process. This allows you to regrade multiple changes simultaneously. Changes are recorded in grading history in the Gradebook.
- When students view their quiz results, they see a notification if their quiz has been affected. The attempt history also reflects the regraded score.

 See also: "What regrade options are available for a quiz?"
community.canvaslms.com/docs/DOC-2989


"How do I regrade a Multiple Choice quiz question?"
community.canvaslms.com/docs/DOC-5361

 See also: "How do I use grading history in the Gradebook?"
community.canvaslms.com/docs/DOC-2804

Fudge Points

Using the SpeedGrader, you can manually add or remove points from a student's overall quiz score. These are called Fudge Points.

1. Open **SpeedGrader** and go to the entry of the student whom you want to give fudge points.
2. The Fudge Point field is at the bottom of the center pane, beneath the questions and answers. Enter negative points to remove points.
3. Click the **Update Score** button to change the student's quiz score.

 **Tip:** In Quiz Regrade, Canvas changes score for all applicable students. In Fudge Points, instructors manually changes grades for applicable students one-by-one.

 See also: "How do I use quiz fudge points in SpeedGrader?"
community.canvaslms.com/docs/DOC-2990

Using the Moderate Quiz Page

The Moderate Quiz page allows you to view the number of quiz attempts each student has taken, time they took to submit, numbers of attempts left, and final scores. You can also grant students extra attempts, extra time for timed quizzes, and manually unlock quiz attempts.

1. Navigate to your quiz.
2. Click the **Moderate Quiz** link on the quiz sidebar on the right (available only after a quiz has been published).
3. Click the **pencil icon** on the right to make changes for an individual student.

 See also: "Once I publish my quiz, how do I use the Moderate Quiz page?"
community.canvaslms.com/docs/DOC-2979

Mobile Apps

The Canvas mobile apps natively supports quizzes that contain Essay, Multiple Choice, Multiple Answer, Fill in the Blank, Matching, Numeric, or True/False questions. Formula and Multiple-Fill-in-the-Blank questions are not supported. **Any quizzes that do not contain supported question types are redirected to the web version of Canvas.**

Currently, the app **does not** support one-question-at-a-time quizzes, quizzes with passcode restrictions, or quizzes with IP address restrictions.

Also, the browser (for iOS in particular) better support quizzes with many mathematic and/or images questions.

For more information about mobile quizzes, see:

- How do I take a quiz in the Canvas app on my iOS device?
community.canvaslms.com/docs/DOC-9866-18561202186
- How do I take a quiz in the Canvas app on my Android device?
community.canvaslms.com/docs/DOC-9762-18555199527

Appendix: Question Type Supported by Chalk vs Canvas

The table below lists question types supported by Chalk and their Canvas equivalents. If you are migrating **Test, Surveys, and Pools** from Chalk into **Quizzes** in Canvas, it's best to delete or convert question types not supported by Canvas first. Questions with answers that include image files are known to cause issues. Test descriptions and attachments sometimes do not migrate as expected.

<u>Chalk</u>	<u>Canvas</u>	<u>Description</u>
Multiple Choice, Either/Or	Multiple Choice	Students choose one correct answer from a selection of answers. To create an 'Either/Or' question in Canvas, add a Multiple Choice question with 2 answer options.
True/False	True/False	Displays two answer options: true and false. There is no partial credit.
Fill in the Blank	Fill in the Blank	Students will see the question with a small text box to type their answer. Answers are not case-sensitive.
Fill in Multiple Blanks	Fill in Multiple Blanks	Enter your question, specify where each blank should go, then define the possible correct answer for each blank using the dropdown menu. Students answer the question by typing the correct answers into text boxes at each blank. Answers are not case-sensitive.
Multiple Answer	Multiple Answers	Student select ALL the answer choices marked as correct.
Jumbled Sentence, Opinion Scale/Likert	Multiple Dropdowns	e.g. "Roses are [color1], violets are [color2]" where [color 1] and [color 2] are dropdown menus. To create an Opinion/Likert Scale question, create a two-column table, enter the question or statement in the first column of each row, then enter the answer choices in the second column.
Calculated Numeric	Numerical Answer	Define the correct answer as any number within a range, or a number plus or minus some error margin. Student will be given an empty text box to type their numerical answer.
Calculated Formula	Formula Question	Enter your question, build a formula, specify the parameters for your variables, and generate a set of possible answer combinations. Students calculate the correct answer based on the randomly selected variables shown to them in the question.
Essay, Short Answer	Essay Question	Students compose their answers in a text box that instructors will manually review and score.
File Response	File Upload Question	Students upload a file as their answer.
Matching	Matching	Students match an answer choice to the prompt on the left by selecting from a dropdown on the right. Multiple rows can have the same answer, and you can add distractor answers on the right.
No Chalk equivalent	Text (no question)	This is not a question to be scored. It is useful for introducing a set of related questions.
Quiz Bowl	No Canvas equivalent	Quiz Bowl questions require the answers in the form of a question. Specify one or more interrogatives and one or more phrases that must be included in the answer.
Ordering	No Canvas equivalent	Students put a series of items in correct order.
Hot Spot	No Canvas equivalent	Students identifying an area in an image file.