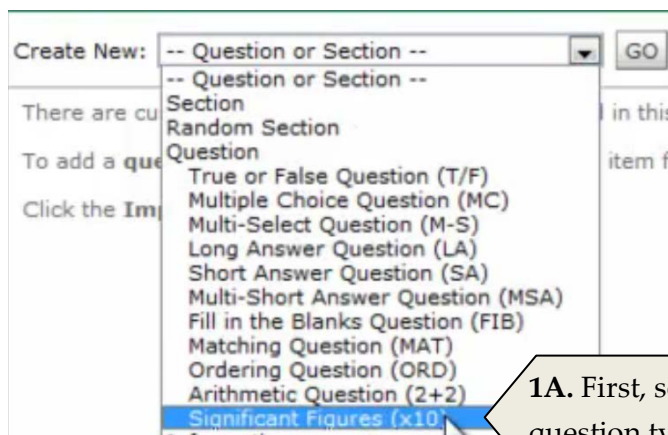


Significant Figure Questions

In this tutorial we will learn how to create a significant figures question.

Step 1. General Setup



Create New: -- Question or Section -- GO

There are currently 0 questions in this section.

To add a question to this section, click the 'Add Question' button.

Click the 'Add Question' button to add a question to this section.

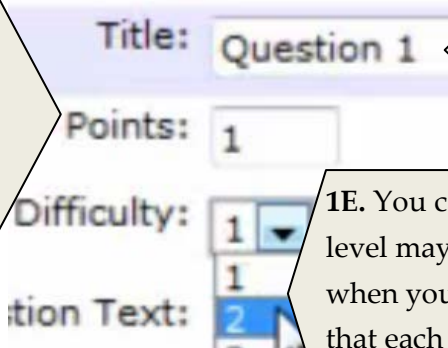
Question Library:

- Section
- Random Section
- Question
- True or False Question (T/F)
- Multiple Choice Question (MC)
- Multi-Select Question (M-S)
- Long Answer Question (LA)
- Short Answer Question (SA)
- Multi-Short Answer Question (MSA)
- Fill in the Blanks Question (FIB)
- Matching Question (MAT)
- Ordering Question (ORD)
- Arithmetic Question (2+2)
- Significant Figures (x10ⁿ)

1B. and click go.

1A. First, select the significant figures question type in the question library

1D. You are required to specify the number of points.



Title: Question 1

Points: 1

Difficulty: 1

Question Text: 1

1C. You have the option to enter a title but if you don't enter a title your question text will automatically be the title of your question.

1E. You can enter a difficulty level, the difficulty level may be used when you randomize questions, when you randomize questions you can ensure that each student receives the same number of questions of that particular difficulty level.

We recommend you to enter a title if you have questions with similar question texts that way the title will help you to distinguish the question when you look at the question list.



* Question Text:  Basic Adv

${x}^{{y}}+9.6$

1F. Next you are required to enter the question text which is where you will enter the question.

You can enter equations that require a number to be inserted and then solved in that manner. This number is chosen later. You must enter the equations and variables correctly, to see the expression used in D2L click on the question mark next to the formula box. You can also type a word problem and then insert the correct equation to be used in the formula box so that the computer can calculate the answer.

Please make sure you are not using different font sizes and types for different questions. Using different font types and sizes may distract your students.

Acceptable file formats for images are jpeg, gif, bmp, and png.

Image:

Description:

1G. The description box will allow the instructor to enter a description for the image. This way those who have a visual impairment will be able to get information about the image using screen reader software.

Associated Objectives:

Associated objectives will be covered in another tutorial.

Step 2. Setting up Options

* Formula:

2A. Next enter a formula. The formula is for the computer to calculate the answer. You must enter the formula correctly.

2C. The test button you see next to the formula box can only be used once the other areas of the question have been entered, so we will return to this button later.

?

2B. To see the expressions used in D2L click on the question mark next to the formula box.

Significant Figures:

2D. Next choose the number of significant figures needed to answer the question.

Deduct: % of points for incorrect significant figures

2E. You may deduct a certain percentage of the question point for an incorrect number of significant figures.

Tolerance: plus or minus one half of the least significant figure

2G. You can choose how many units (numbers) or percents above or below the correct answer will be acceptable.

units +/- x10

percent +/-

2F. You can choose the tolerance as plus or minus one half of the least significant figure. This way students are allowed to round up or down to the least significant figure.

Units: Worth: % of Points

2H. You can also enter units and set the percent value of units included in the equation.

For example, if the answer to a question is 17 hr, then if hr is included in the answer, that will be worth a certain percentage of the total points for the question.

Evaluation Options:

- Case Insensitive
- Case Sensitive
- Regular Expression

2I. Evaluation options include case insensitive, case sensitive, and regular expression.

Step 3. Setting up Variables

#	Name	Min	Max
1	<input type="text" value="x"/>	<input type="text" value="5"/> <input type="text" value="x10"/> <input type="text" value="2"/>	<input type="text" value="15"/> <input type="text" value="x10"/> <input type="text" value="2"/>
2	<input type="text" value="y"/>	<input type="text" value="3"/> <input type="text" value="x10"/> <input type="text" value="2"/>	<input type="text" value="9"/> <input type="text" value="x10"/> <input type="text" value="2"/>

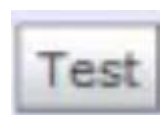
3A. You need to specify which variable and range the computer will insert into the equation.

As mentioned earlier, the computer will input a number for any variable. To make this happen, enter the variable into the name box. Then choose the minimum number to be inserted for that variable and the maximum number. If you enter the same number into both the min and max spaces, then the computer will insert that number.

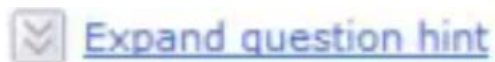
Step

3B. You can also choose the step for the particular variable. The step is the increments in which the computer will choose the number to input for that variable.

For example, enter x as the variable, 5×10^2 as the min, 15×10^2 as the max, and 2×10^1 as the step. This means the computer will choose a number between 5×10^2 and 15×10^2 but because the step is 2×10^1 , the computer can only choose numbers corresponding to that increment. It will not choose any other number because of what the step is.



3C. To test your formula click the test button. You will see a new screen that verifies if your formula is correct, if it isn't it will give a reason why it isn't correct.



3D. You can add a question hint by clicking on the expansion arrow. You can use hints to guide your students during the exam. To make the hints visible you need to set it up in the properties tab of the quiz.



3E. You can also add a question feedback by clicking on its expansion arrow. Feedback will not be visible to students unless you choose to show question answers in the submission view tab.

Step 4. Ways to Save and Preview Work

At the top and bottom of your page you can click the preview, save, save and copy, or save and new button.



4A. The preview button can be used to see the question from the student and instructor's perspective for grading purposes.



4B. If you are planning to create a different type of question after this one, click the save button.



4C. If you would like to create another significant figures question with a similar question text click the save and copy button.



4D. If you would like to create a new significant figures question with different information click the save and new button.

In this tutorial we learned how to create significant figures questions.