

Sequential Questions

Last Modified on 03/16/2026 8:27 am EDT

Sequential questions will help students develop conceptual understanding that will serve them when solving problems and learning more advanced course concepts. The question can have up to seven steps that students can answer.

Sequential questions are very similar in many ways to a standard question in Smartwork. The feedback after each attempt will give students the opportunity to course-correct and deepen their understanding. However, as these questions are pedagogically designed to walk students through the steps, building their knowledge as they work through the concept being taught, they cannot skip a step. Instead, students will receive specific feedback to any wrong answers they submit and can always view the solution to that specific step so that they can move onto the next step.

Hide All Answers

Adding Sequential Questions to an Assignment

1. In an existing premade assignment or a new assignment, click **ADD QUESTIONS** in the assignment editor to open the Question Library.

The screenshot shows the 'EDIT ASSIGNMENT' interface for 'Chapter 1'. It includes a 'Settings' section with fields for 'Assignment Name' (Chapter 1), 'Description', 'Grades Accepted Until (GAU)' (11:59 PM, GMT-05:00 Eastern Time), and 'Exam Mode' (OFF). Below this is an 'Adaptive' section (OFF) and a 'Questions' section with an 'ADD QUESTIONS' button. A table lists three questions with columns for Question Type, Avg. Time, Points, Attempts, Grade Penalties, and Hints. At the bottom, there are 'PREVIEW', 'PUBLISH', and 'SAVE' buttons, along with a 'Not published' status indicator.

Questions	Question Type	Avg. Time	Points	Attempts	Grade Penalties	Hints		
Adjust all question settings:								
01 Dalton's Law of Multiple Proport...	Algo Numeric Entry	---	1	∞	0%	ON		
02 Use information to collect and or...	Algo Numeric Entry	---	1	∞	0%	ON		
03 Sort real-world examples by sep...	Sorting	---	1	∞	0%	ON		
04 Analysis States of Matter and P...	Algo Mixed	01:41	3	∞	0%	ON		

2. To add a Sequential question to an assignment, click **TYPE** to reveal the dropdown. From the dropdown, click to

checkmark “Sequential” to view all the available questions.

- Sequential questions have an **S** icon next to the question title in the Question Library and in the assignment editor.

The screenshot shows the 'QUESTION LIBRARY' interface. At the top, there is a search bar and a 'YOUR CURRENT ASSIGNMENT' button with a notification badge. Below the search bar are filter buttons for CHAPTER, OBJECTIVE, SERIES, TYPE, DIFFICULTY, BLOOM'S, and AUTHOR. The 'TYPE' dropdown menu is open, showing options like Molecule Drawing, Ranking, Sorting, Labeling, Short Answer, Numeric Entry, Chemical Equation, Symbolic Equation, Graph, 3D Molecule, Open Response, Multi-Step, and Sequential. The main table lists questions with columns for NUM, QUESTION TITLE, CHAPTER, and AVERAGE TIME. The 'Sequential' question is highlighted in the dropdown menu.

NUM	QUESTION TITLE (5539 results)	CHAPTER	AVERAGE TIME
+ EOC	Relating SI prefixes to conversion factors	1	--:--
+ 1.057 EOC	Miles of Silk in a Single Strand	1	--:--
+ 1.058 EOC	Converting from metric to English units	1	--:--
+ 1.060 EOC	Calories Burned by a Wheelchair Racer	1	--:--
+ 1.061 EOC	Calculate volume given edge lengths	1	--:--
+ 1.064 EOC	The Mass of a Magnesium Block	1	03:18
+ 1.065 EOC	Volume of Two Metal Samples	1	05:17
+ 1.066 EOC	Density of Air in Hot-Air Balloon	1	--:--
+ 1.070 EOC	Average Density of the Sun	1	13:08
+ 1.072 EOC	Volume of a Diamond	1	04:47
+ 1.073 EOC	Significant Figures for calculated answer (a)	1	01:57

3. Click the + button next to Sequential question you want to add to your assignment.

4. Click **YOUR CURRENT ASSIGNMENT** at the top-right of the Question Library to see the Sequential question you added to your assignment. You can also click the arrow at the top-left to go back to Edit Assignment.

Previewing a Sequential Question

1. In the assignment editor, you can preview the Sequential question by clicking the play button next to question title or clicking the **PREVIEW** button to view all the questions in your assignment.

Questions	Question Type	Avg.Time	Points	Attempts	Grade Penalties	Hints			
<i>Adjust all question settings:</i>									
01 Dalton's Law of Multiple Propo...	Algo Numeric Entry	--:--	1	∞	0%	ON			
02 Use information to collect and ...	Algo Numeric Entry	--:--	1	∞	0%	ON			
03 Sort real-world examples by se...	Sorting	--:--	1	∞	0%	ON			
04 Analyzing States of Matter and ...	Algo Mixed	01:41	3	∞	0%	ON			
05 Internal Energy Key Terms	Sorting	--:--	2	∞	0%	ON			
06 [VPM] Ranking Molecules by N...	Ranking	00:34	2	∞	0%	ON			
07 The temperature of radiator co...	Numeric Entry	--:--	2	∞	0%	ON			
08 Precision and Accuracy on a Da...	Multiple Select	01:44	3	∞	0%	ON			
09 [POOL] Filtration Total Pool Questions:2	Pool Sorting	--:--	1	∞	0%	ON			
10 NEW S Chemistry Question Sequential Question	Sequential	--:--	8	∞	0%	ON			

PREVIEW

Not published

PUBLISH

SAVE

2. On the Sequential question, click **START** to begin.

7 STEPS

[View Steps](#)

Sequential Question

This is a sequential question with multiple steps that need to be completed in order. You cannot move on to the next step until you submit a correct answer or view the solution.

START

2. The first question step will be displayed and must be answered before proceeding to the next step.

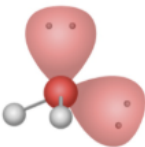
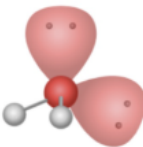
1 2 3 4 5 6 7 View Steps

▼ **1st attempt** ↗

[See Periodic Table](#) [See Hint](#)

The pH scale is a numeric scale chemists use to express the relative acidity or basicity of an aqueous solution. Recall that H₂O self-ionizes to produce small amounts of H₃O⁺ and OH⁻ ions.

$$\text{H}_2\text{O} (l) + \text{H}_2\text{O} (l) \rightleftharpoons \text{H}_3\text{O}^+ (aq) + \text{OH}^- (aq)$$



Placeholder for Animation

What is the equilibrium constant expression for this autoionization of water?

x | x | - | + | log | cos | ÷

$K_w =$

⚡ VIEW SOLUTION👉 SUBMIT ANSWER

◀ **PREVIOUS: Introduction** Step 1 of 7
(1 point)

4. After a correct answer is submitted or the solution is viewed, the step will be marked as "STEP COMPLETED" and the circle for the step will be filled in.

1 2 3 4 5 6 7 View Steps

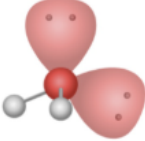
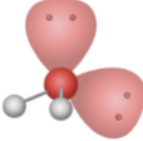
> **Solution** ⚡

▼ **1st attempt** ✔

Feedback [See Periodic Table](#) [See Hint](#)

The pH scale is a numeric scale chemists use to express the relative acidity or basicity of an aqueous solution. Recall that H₂O self-ionizes to produce small amounts of H₃O⁺ and OH⁻ ions.

$$\text{H}_2\text{O} (l) + \text{H}_2\text{O} (l) \rightleftharpoons \text{H}_3\text{O}^+ (aq) + \text{OH}^- (aq)$$



Placeholder for Animation

What is the equilibrium constant expression for this autoionization of water?

x x $\frac{\square}{\square}$ + log cos δ

✔

$$K_w = [\text{H}_3\text{O}^+][\text{OH}^-]$$

✔ STEP COMPLETED

< **PREVIOUS: Introduction** Step 1 of 7 NEXT: Step 2 >

(1 point)

5. Once all the steps are answered, the student will see a FINISH button. When the student clicks the **FINISH** button, a "Question Completed" confirmation will be displayed.

The screenshot shows a dark green header bar at the top with seven white circles numbered 1 through 7. The circle for step 7 is filled, indicating completion. In the top right corner of the header, the text 'View Steps' is displayed with a small underline. The main content area is white and contains the text 'Question Completed' in a large, bold font, followed by 'Nice work! You've completed all steps in the sequential question.' in a smaller font. At the bottom, a dark green footer bar contains a left arrow, the text 'PREVIOUS: Step 7', the text 'All Steps Complete', and a right arrow. Below the footer bar, there is a progress indicator consisting of a rounded rectangle with '1 OF 5 QUESTIONS COMPLETED' inside. To the right of this is the text '1 of 5 Questions' followed by 'NEXT' and a right arrow. Further right is a checkmark icon followed by the text 'QUESTION COMPLETED'.

Assignment Settings

If Sequential Questions are used in an assignment, some settings **cannot** be applied:

- Show Solution
 - Only after a correct answer, or all attempts are exhausted
 - Only after “Grades Accepted Until” date has passed
- Exam Settings

If you’d like to use one of the settings mentioned above, you’ll need to remove the Sequential question from the assignment.

Sequential questions also **cannot** be edited. The edit icon for the question in the assignment editor will be grayed out for the question and a message overlay will be displayed if you move the cursor over it.

Chapter 1 EDIT ASSIGNMENT instructor@wnnorton.com

Adjust all question settings:

Questions	Question type	Avg. time	Points	Attempts	Grade Penalties	Hints			
01	Sorting acids and electrolytes (sp...)	Sorting	--:--	2	∞	0%	ON		
02	Calculating Molarity	Algo Numeric Entry	--:--	3	∞	0%	ON		
03	Calculate mass of solute to prep...	Algo Numeric Entry	--:--	3	∞	0%	ON		
04	Molar Solution Preparation	Algo Numeric Entry	07:34	1	∞	0%	ON		
05	Dilutions (Qualitative and Quant...)	Mixed	--:--	2	∞	0%	ON		
06	Calculate Molar Absorptivity an...	Numeric Entry	--:--	2	∞	0%	ON		
07	Molar Concentration of Electrol...	Algo Numeric Entry	04:30	3	∞	0%	ON		
08	Identifying Strong and Weak Aci...	Mixed	07:13	3	∞	0%	ON		
09	[POOL] Determine Oxidation ... Total Pool Questions:3	Pool Short Answer	03:04	2	∞	0%			Sequential questions cannot be edited.
10	NEW 5 Chemistry Question Sequential Question	Sequential	--:--	8	∞	0%	ON		

PREVIEW Not published PUBLISH SAVE