

# Sequential Questions

Last Modified on 08/14/2025 4:21 pm 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 a 'Questions' section with an 'ADD QUESTIONS' button and summary statistics: 'Estimated total time: 4 min' and 'Total points: 24 pts'. A table lists three questions: 'Dalton's Law of Multiple Proportions', 'Use information to collect and or...', and 'Sort real-world examples by sep...'. Each question has columns for 'Question Type', 'Avg. Time', 'Points', 'Attempts', 'Grade Penalties', and 'Hints'. The 'Hints' column shows 'ON' for each question. At the bottom, there are buttons for 'PREVIEW', 'PUBLISH', and 'SAVE'.

Questions	Question Type	Avg. Time	Points	Attempts	Grade Penalties	Hints
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

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's a search bar and a 'YOUR CURRENT ASSIGNMENT' button with a red notification badge. Below the search bar, there are filter buttons: CHAPTER, OBJECTIVE, SERIES, TYPE, DIFFICULTY, BLOOM'S, and AUTHOR. The 'TYPE' dropdown menu is open, showing options like Grouped List, 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 with a blue background. At the bottom, there are buttons for 'CREATE NEW POOL' and 'CREATE NEW QUESTION'.

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	
Adjust all question settings:			<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
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 5 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  $\text{H}_2\text{O}$  self-ionizes to produce small amounts of  $\text{H}_3\text{O}^+$  and  $\text{OH}^-$  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.

$\delta$ .

$K_w =$

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  $\text{H}_2\text{O}$  self-ionizes to produce small amounts of  $\text{H}_3\text{O}^+$  and  $\text{OH}^-$  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

δ

✓

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

✓ STEP COMPLETED

PREVIOUS: Introduction

Step 1 of 7

(1 point)

NEXT: Step 2

>

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.

1

2

3

4

5

6

7

[View Steps](#)

## Question Completed

Nice work! You've completed all steps in the sequential question.

< **PREVIOUS: Step 7**

All Steps Complete

1 OF 5 QUESTIONS COMPLETED

1 of 5 Questions **NEXT** >

✓ 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

Questions	Question Type	Avg. time	Points	Attempts	Grade Penalties	Hints		
Adjust all question settings:								
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%			
10 NEW 5 Chemistry Question Sequential Question	Sequential	--:--	8	∞	0%	ON		

PREVIEW

Not published

PUBLISH

SAVE

Sequential questions cannot be edited.