

# Sequential Questions

Last Modified on 03/17/2026 12:50 pm EDT

A Sequential question is a set of steps which must be answered in order to proceed to the next question.

[Hide All Answers](#)

## Answering a Sequential Question

1. If your assignment includes a Sequential question, it will have an **S** icon next to the question title and “Sequential” under the question type.

□

2. In the student player, you will see the Sequential question that your instructor included in your assignment. Click **START** to begin.

### 01 Question (7 points)

In this ChemTour, you will learn how pH is defined in terms of the autoionization of water and how to calculate the pH of a solution.

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**

0 OF 5 QUESTIONS COMPLETED

1 of 5 Questions **NEXT** ▶

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

**Note:** You cannot move onto the next step unless you submit a correct answer or view the solution.

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 H<sub>2</sub>O self-ionizes to produce small amounts of H<sub>3</sub>O<sup>+</sup> and OH<sup>-</sup> 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?

$K_w =$

VIEW SOLUTION SUBMIT ANSWER

[PREVIOUS: Introduction](#) Step 1 of 7  
(1 point)

4. After a correct answer is submitted or if the solution is viewed, the step will be marked as "STEP COMPLETED" and the circle for the step will be filled in. Click the NEXT button for the next step to proceed.

1 2 3 4 5 6 7 View Steps

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> **Solution** ⚡

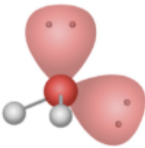
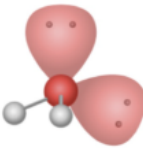
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▼ **1st attempt** ✔

**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 H<sub>2</sub>O self-ionizes to produce small amounts of H<sub>3</sub>O<sup>+</sup> and OH<sup>-</sup> 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

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

(1 point)

5. Once you've completed all the steps, you'll see a FINISH button on the last step of your question. Click on the FINISH button and 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, while the others are empty. 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, there is a dark green footer bar with 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 a grey fill and the text "1 OF 5 QUESTIONS COMPLETED". To the right of this is the text "1 of 5 Questions" followed by "NEXT" and a right arrow. On the far right, there is a checkmark icon followed by the text "QUESTION COMPLETED".

## View Steps

Clicking **View Steps** on the upper right of the Sequential question allows students to view the progress of each of the question steps included in the question. Students will also be able to view how many points they earned for each question step they answered correctly.

The screenshot displays a user interface for a sequential question. The main content area is dark gray and features the text "Question Completed" and "Nice work! You've completed all steps in the sequential que". At the top, there are seven circular progress indicators numbered 1 through 7. A sidebar on the right, titled "Question Steps", lists seven steps, each with the status "COMPLETED", "Attempts: 1/∞", and "Points: 1/1". At the bottom, there are navigation options: "< PREVIOUS: Step 7" and "All Steps Complete".

Step	Status	Attempts	Points
Step 1	COMPLETED	1/∞	1/1
Step 2	COMPLETED	1/∞	1/1
Step 3	COMPLETED	1/∞	1/1
Step 4	COMPLETED	1/∞	1/1
Step 5	COMPLETED	1/∞	1/1
Step 6	COMPLETED	1/∞	1/1
Step 7	COMPLETED	1/∞	1/1

## Reviewing or Practicing Sequential Questions

1. After you've completed the Sequential question, you'll be able to review each step. Click **REVIEW** to view each step in the question.

## 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.

▶ REVIEW

2. Click the "NEXT" button to review the next step.

1 2 3 4 5 6 7 View Steps

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> **Solution** ⚡

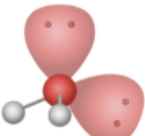
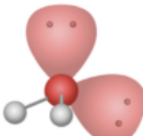
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▼ **1st attempt** ✔

**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 H<sub>2</sub>O self-ionizes to produce small amounts of H<sub>3</sub>O<sup>+</sup> and OH<sup>-</sup> 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

✔

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

PRACTICE ✔ STEP COMPLETED

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

3. If your instructor has allowed for ungraded practice on the assignment, you will see a practice button on each step of the Sequential question.

1

2

3

4

5

6

7

View Steps

&gt; Solution



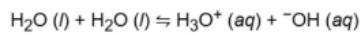
v 1st attempt



Feedback

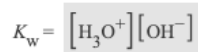
See Periodic Table See Hint

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.



Placeholder for Animation

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

 x  x  -  +  log  cos  ÷

PRACTICE

✓ STEP COMPLETED

&lt; PREVIOUS: Introduction

Step 1 of 7  
(1 point)

NEXT: Step 2 &gt;

1

2

3

4

5

6

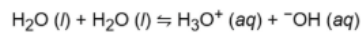
7

View Steps

## Practice 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.



Placeholder for Animation

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

$\times$   $\div$   $-$   $+$   $\log$   $\cos$   $\delta$

$K_w =$

[CHECK PRACTICE](#)

STEP COMPLETED

&gt; Solution



&gt; 1st attempt



&lt; PREVIOUS: Introduction

Step 1 of 7  
(1 point)

NEXT: Step 2 &gt;