



Question:

What is the effect of the following reaction on the pH of the solution? $\text{H}_2\text{O} + \text{CO}_2 \rightleftharpoons \text{H}_2\text{CO}_3$

1. The pH will increase.
 2. The pH will decrease.
 3. The pH will remain the same.
 4. The pH will increase or decrease depending on the concentration of CO_2 .

Answer: 2. The pH will decrease.

Explanation: The reaction shows the formation of carbonic acid from water and carbon dioxide. Carbonic acid is a weak acid, and its formation will increase the concentration of H^+ ions in the solution, which will decrease the pH.

[illegible][illegible]

$\frac{1}{2} \sqrt{\frac{5}{3}}$
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