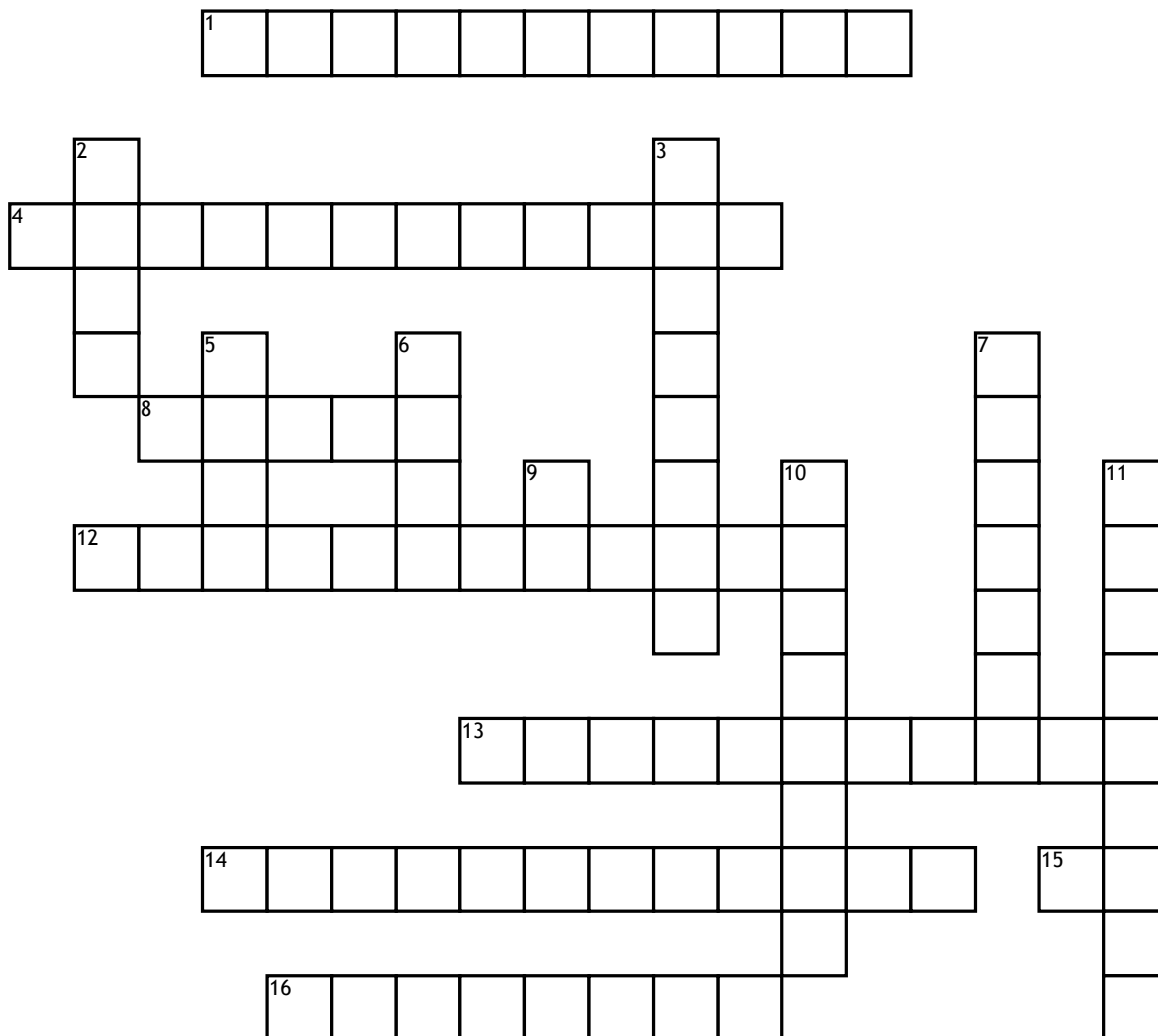


# Buffers



## Across

1. To calculate: Assume that the concentration of HA at the start = the concentration of HA at .....

4. Making a buffer: solution of weak acid + .....

8. If an acid is added: This is possible as the concentration of anions is .....

12. The pH of the buffer ..... if it is dissolved

13. Making a buffer works best if the acid is half .....

14. If an alkali is added: OH<sup>-</sup> reacts with H<sup>+</sup> and the P.O.E shifts to the right due to the weak acid ..... to replace the H<sup>+</sup>

15. To calculate: Write the ..... expression

16. To calculate: write the ..... for dissociation

## Down

2. To calculate: Assume that all anions come from the .....

3. If an acid is added: The [H<sup>+</sup>] and therefore pH remain .....

5. Making a buffer: Excess weak acid + strong .....

6. If an acid is added: H<sup>+</sup> reacts with the anion to shift the P.O.E to the .....

7. A buffer is a solution which ..... change to pH when small volumes of acid or alkali are added.

9. The start ..... depends on which acid is chosen

10. An acidic buffer is a ..... plus its salt

11. Making a buffer: Solution of weak acid + .....