

8 Weak acids and buffers – Part 2 — Answers

Answers

Work through these after you have tried the questions yourself.

2.1 a strong acid dissociates completely into ions; a weak acid only partly dissociates, so most stays as whole molecules.

2.2 acetic acid is weak, so only a small fraction dissociates, giving a lower $[H^+]$ and therefore a higher pH than the fully-dissociated HCl.

2.3 it rises steeply (a sharp jump) as the acid is just used up.

2.4 a weak acid and its conjugate base (in similar amounts).

2.5 the conjugate base reacts with the added H^+ , removing it from solution, so the pH hardly changes.