



Chemical Changes

Multiple Choice Questions

Set 5 (Chemistry Only)

Tick **one** box.

1. What is the name of the process used to measure the exact volume of an acid required to neutralise an alkali?

- A. distillation ☐
- B. electrolysis ☐
- C. oxidation ☐
- D. titration ☐

2. 25cm³ of sodium hydroxide is placed in a conical flask. What piece of equipment should be used to slowly add small, measured volumes of hydrochloric acid to the sodium hydroxide?

- A. beaker ☐
- B. burette ☐
- C. measuring cylinder ☐
- D. pipette ☐

3. How is the end point of a titration determined?

- A. when a set amount of acid has been added to the alkali ☐
- B. when all of the alkali has been used up ☐
- C. when the alkali has been added for a set amount of time ☐
- D. when the indicator permanently changes colour ☐

4. If the start reading in a titration is 0.75cm³ and the end reading is 32.25cm³, what is the titre?

- A. 24.25cm³ ☐
- B. 31.50cm³ ☐
- C. 33.00cm³ ☐
- D. 43.00cm³ ☐

5. The table shows the results of a titration.

Which results should be used to calculate the mean titre?

- A. all of them ☐
- B. trials 1 and 2 ☐
- C. trials 2 and 4 ☐
- D. trials 2, 3 and 4 ☐

Trial	Titre
1	27.95cm ³
2	23.55cm ³
3	25.05cm ³
4	23.45cm ³



6. In a different titration, a student recorded titres of 19.30cm^3 , 19.40cm^3 and 19.90cm^3 . What is the mean titre?
- A. 19.35cm^3 ☐
- B. 24.02cm^3 ☐
- C. 25.00cm^3 ☐
- D. 19.75cm^3 ☐

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7. A solution of sodium nitrate has a concentration of 0.25mol/dm^3 . How many moles of sodium nitrate are dissolved in 5dm^3 of the solution?
- A. 0.05 ☐
- B. 1.25 ☐
- C. 4.75 ☐
- D. 5.25 ☐
8. 0.5mol of potassium hydroxide is dissolved in 4dm^3 of water. What is the concentration of potassium hydroxide solution formed?
- A. 0.125mol/dm^3 ☐
- B. 2.0mol/dm^3 ☐
- C. 3.5mol/dm^3 ☐
- D. 4.5mol/dm^3 ☐
9. In a titration, 30cm^3 of 0.5mol/dm^3 potassium hydroxide (KOH) is neutralised by 60cm^3 of hydrochloric acid (HCl). What is the concentration of the hydrochloric acid.
- A. 0.25mol/dm^3 ☐
- B. 0.50mol/dm^3 ☐
- C. 0.75mol/dm^3 ☐
- D. 1.00mol/dm^3 ☐
10. In a titration, 1.25mol/dm^3 sodium hydroxide (NaOH) is added to 50cm^3 of 0.50mol/dm^3 hydrochloric acid (HCl). What volume of sodium hydroxide is needed to neutralise the hydrochloric acid?
- A. 10cm^3 ☐
- B. 12.5cm^3 ☐
- C. 20cm^3 ☐
- D. 50cm^3 ☐