

Name:

Date:

## Titration - 2

# GCSE CHEMISTRY

Mark

Grade

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### Materials

For this paper you must have:

- Ruler
- Pencil and Rubber
- Scientific calculator, which you are expected to use when appropriate

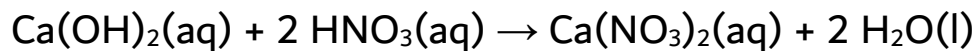
### Instructions

- Answer all questions
- Answer questions in the space provided
- All working must be shown

### Information

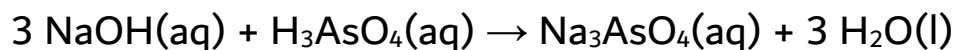
- The marks for the questions are shown in brackets

1. What volume of 0.0400 mol/dm<sup>3</sup> calcium hydroxide just neutralises 25.0 cm<sup>3</sup> of 0.100 mol/dm<sup>3</sup> nitric acid? Give your answer to 3 significant figures



Answer:

2. 25.0 cm<sup>3</sup> of arsenic acid, H<sub>3</sub>AsO<sub>4</sub>, required 37.5 cm<sup>3</sup> of 0.100 mol/dm<sup>3</sup> sodium hydroxide for neutralization.



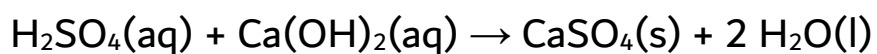
- a) Find the concentration of the arsenic acid in mol/dm<sup>3</sup>. Give your answer to 3 significant figures.

Answer:

b) Find the concentration of the arsenic acid in g/dm<sup>3</sup>. Give your answer to 3 significant figures.

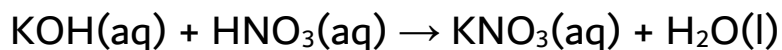
Answer:

3. What volume of 0.0100 mol/dm<sup>3</sup> calcium hydroxide neutralises 25.0 cm<sup>3</sup> of 0.140 mol/dm<sup>3</sup> sulfuric acid? Give your answer to 3 significant figures



Answer:

4. What volume of 1.50 mol/dm<sup>3</sup> potassium hydroxide reacts with 25.0 cm<sup>3</sup> of 1.10 mol/dm<sup>3</sup> nitric acid? Give your answer to 3 significant figures



Answer:

5. 25.0 cm<sup>3</sup> of sodium carbonate solution neutralises 27.9 cm<sup>3</sup> of 0.500 mol/dm<sup>3</sup> nitric acid solution.



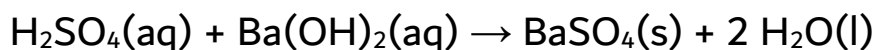
- a) Find the concentration of sodium carbonate solution in mol/dm<sup>3</sup>. Give your answer to 3 significant figures

Answer:

b) Find the concentration of the sodium carbonate solution in g/dm<sup>3</sup>. Give your answer to 3 significant figures

Answer:

6. 25.0 cm<sup>3</sup> of 0.200 mol/dm<sup>3</sup> sulfuric acid neutralises 18.6 cm<sup>3</sup> of barium hydroxide solution.



a) Find the concentration of the barium hydroxide solution in mol/dm<sup>3</sup>. Give your answer to 3 significant figures.

Answer:

b) Find the concentration of the barium hydroxide solution in g/dm<sup>3</sup>. Give your answer to 3 significant figures.

Answer: