

Paper Reference(s) 1CH0/1F
Pearson Edexcel Level 1/Level 2 GCSE (9–1)

Chemistry
PAPER 1
Foundation Tier

Friday 17 May 2024 – Morning

Time: 1 hour 45 minutes

Diagram Booklet

THIS DIAGRAM BOOKLET MUST BE RETURNED WITH THE QUESTION PAPER AT THE END OF THE EXAMINATION.

In the boxes below, write your name, centre number and candidate number.

| | | | | | |
|------------------|--|--|--|--|--|
| Surname | | | | | |
| Other names | | | | | |
| Centre Number | | | | | |
| Candidate Number | | | | | |

INSTRUCTIONS

There may be spare copies of some diagrams in case you need them.

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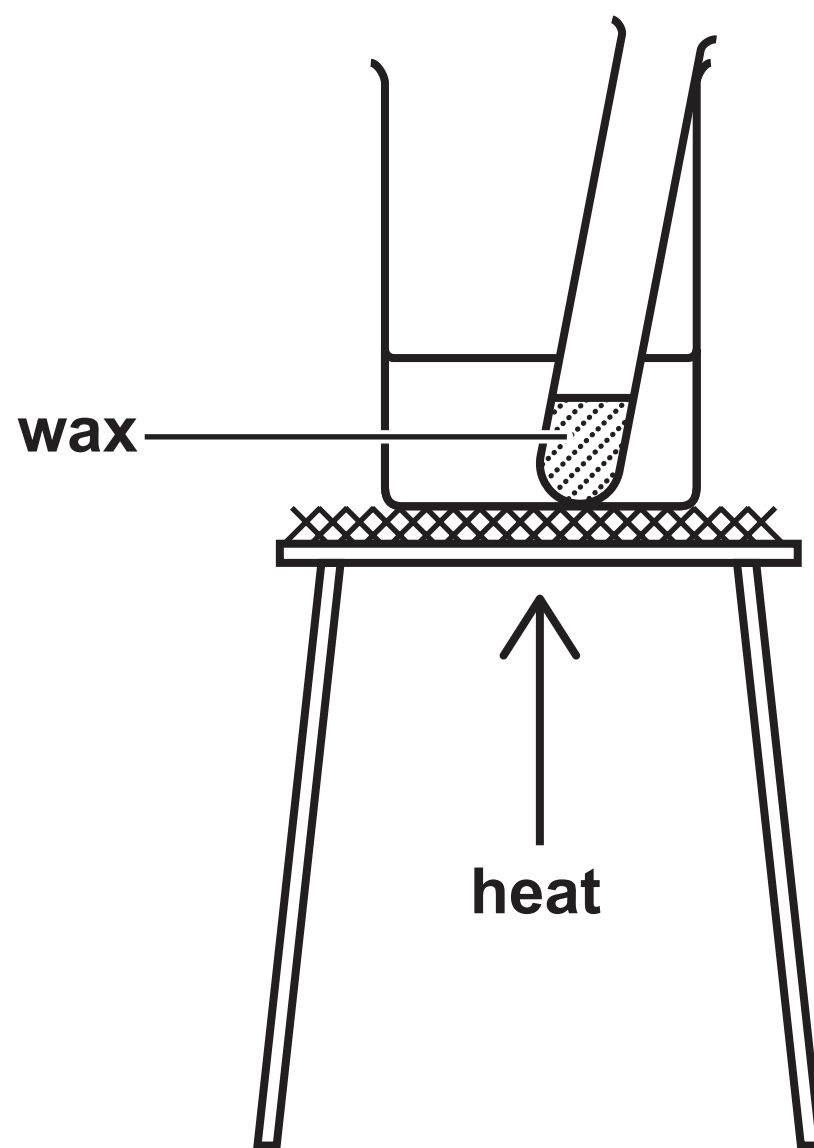
Turn over

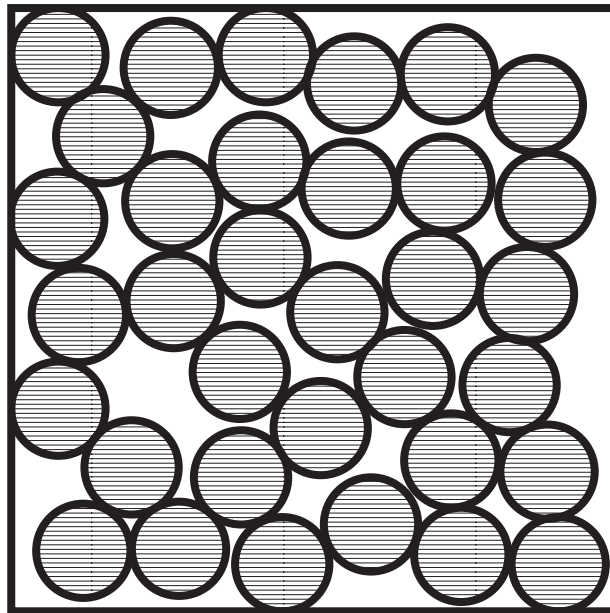
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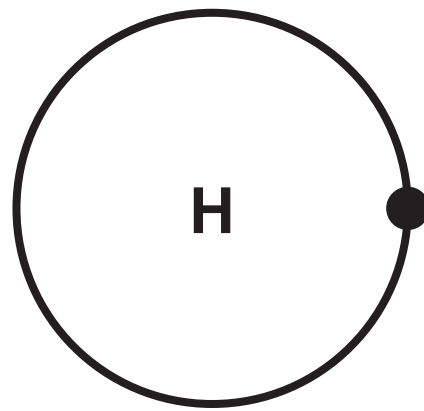
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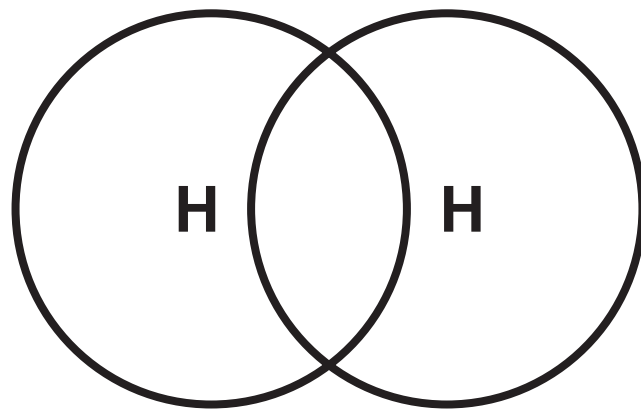
Question 1

FIGURE 1



Question 1(a)**FIGURE 2****FIGURE 3**

Question 2(a)(ii)**FIGURE 4****(continued on the next page)**

Question 2(a)(ii) continued

$$\frac{\quad}{\quad} + \frac{\quad}{\quad} \uparrow \frac{\quad}{\quad}$$

Question 3(c)

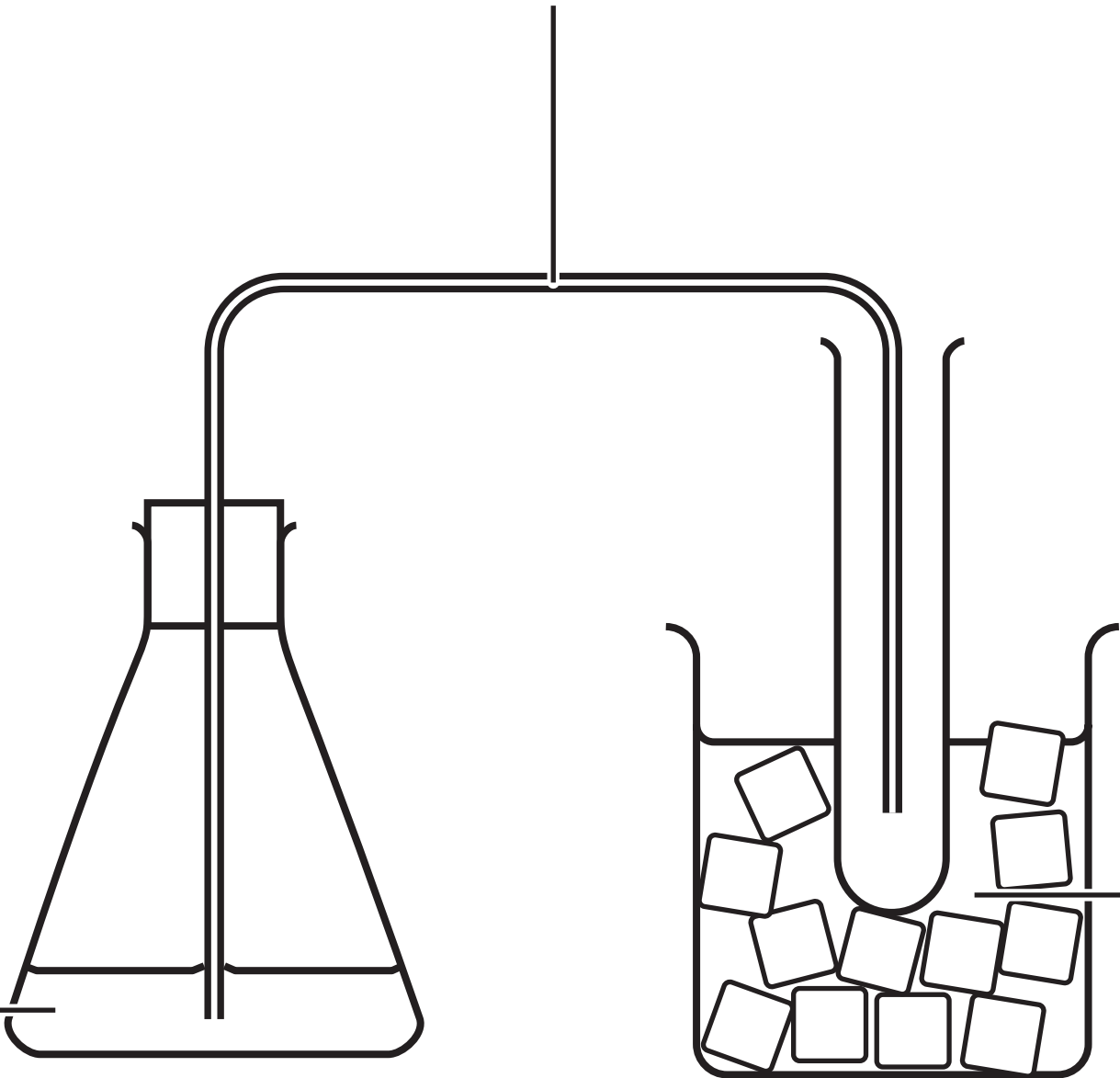
FIGURE 5

delivery tube

tap water

iced water

heat



Question 4

FIGURE 6

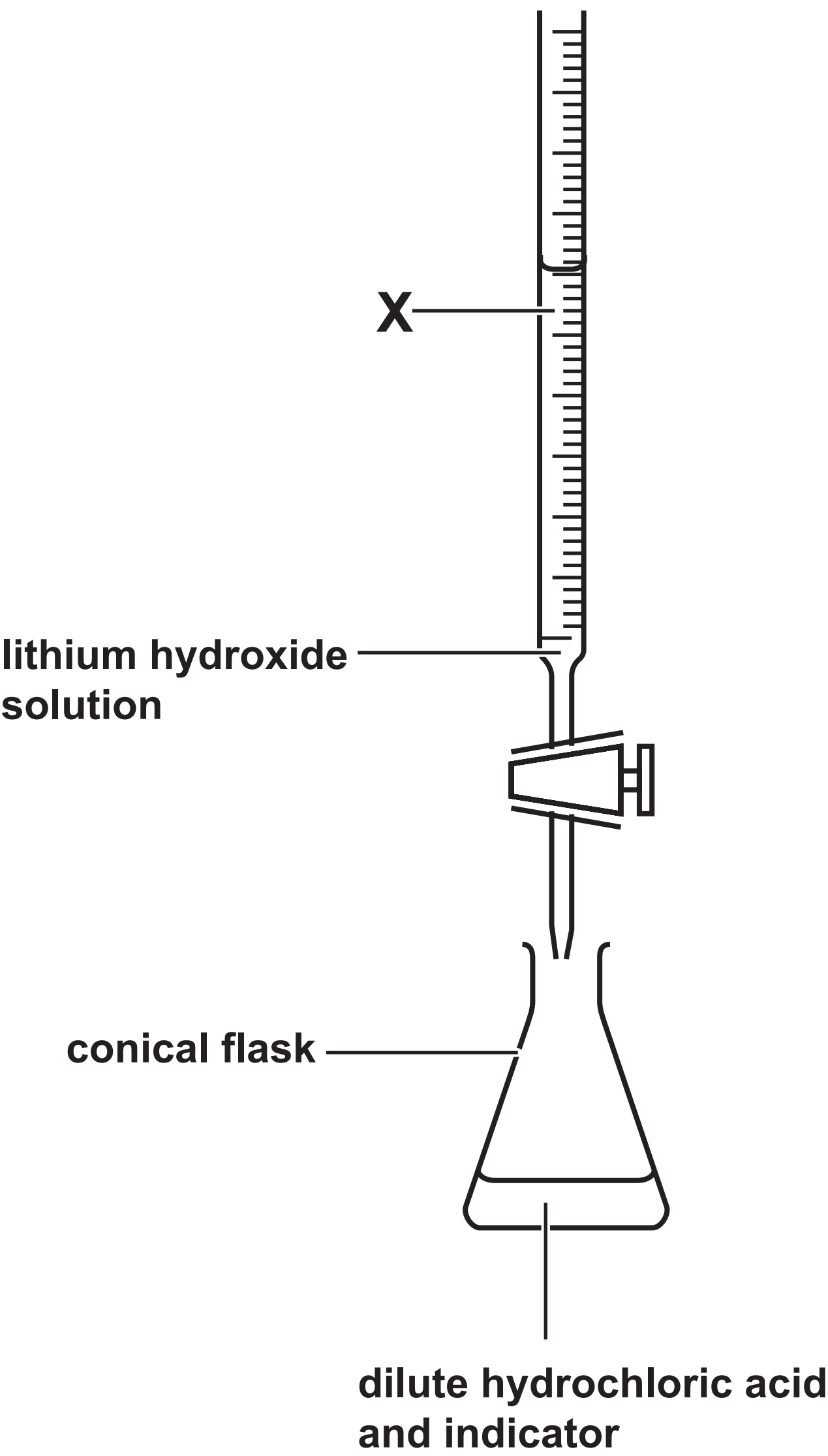
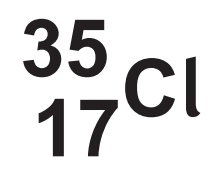


FIGURE 7

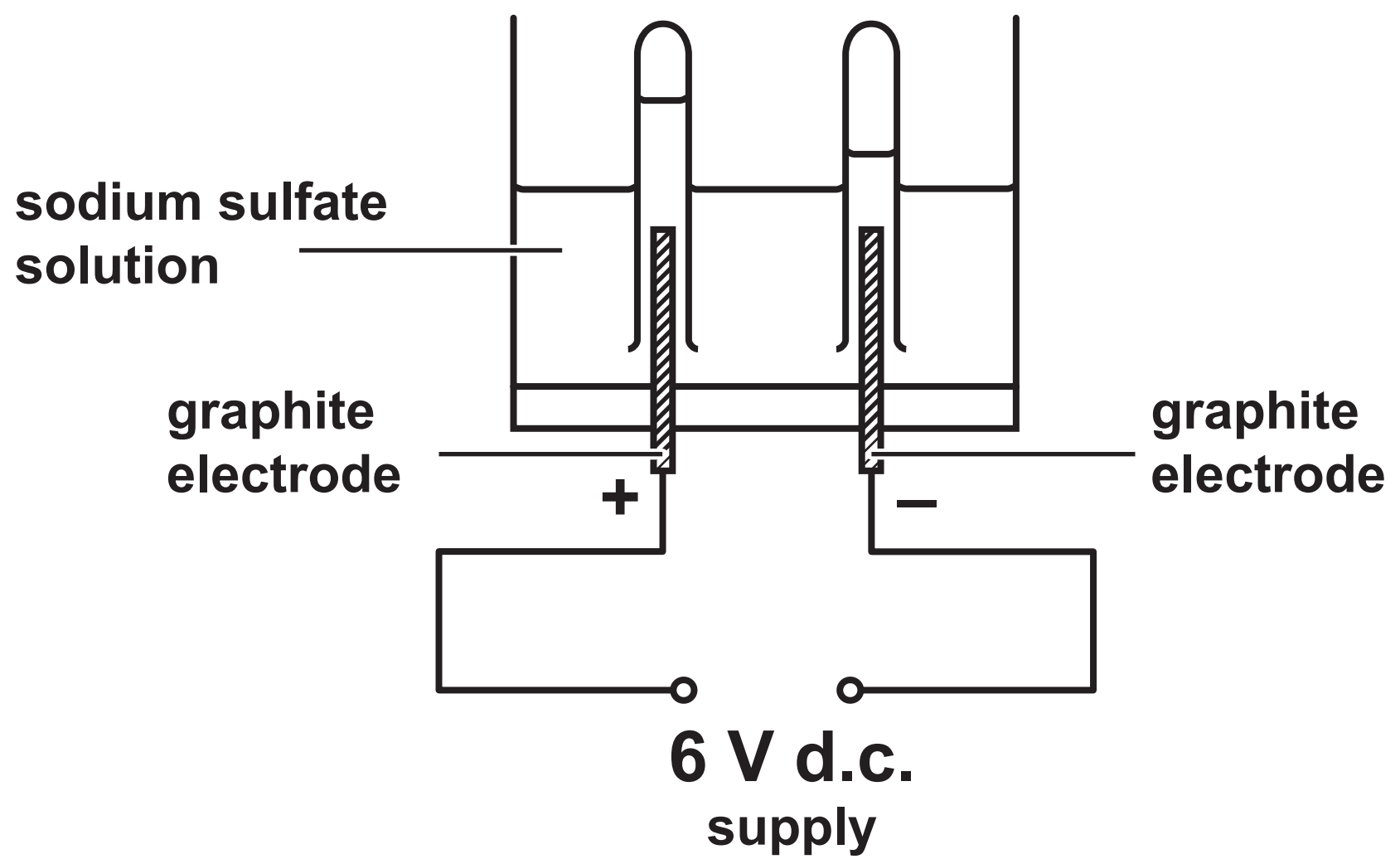
| | rough titration | accurate titration 1 | accurate titration 2 | accurate titration 3 |
|---|-----------------|----------------------|----------------------|----------------------|
| final reading on X in cm ³ | 29·15 | 28·20 | 27·30 | 27·60 |
| initial reading on X in cm ³ | 1·50 | 3·50 | 2·50 | 3·00 |
| volume of lithium hydroxide solution added in cm ³ | | 24·70 | 24·80 | 24·60 |

$$\frac{1}{2} + \frac{1}{2} = 1$$

Question 5(a)**FIGURE 8**

Question 6(c)

FIGURE 9



Question 6(c)(iii)

ELECTRODE

PRODUCT

hydrogen

anode

hydroxide

cathode

oxygen

sodium

Question 7(a)

FIGURE 10

boiling tube **A**

boiling tube **B**

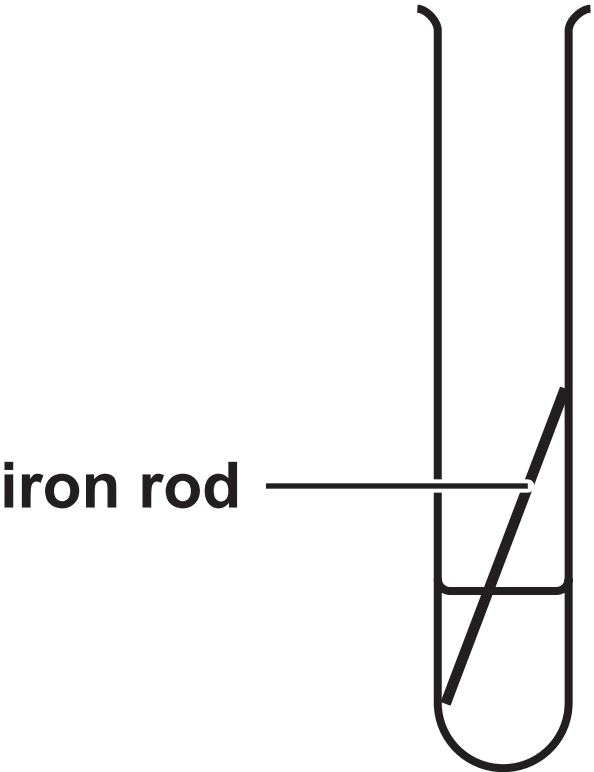
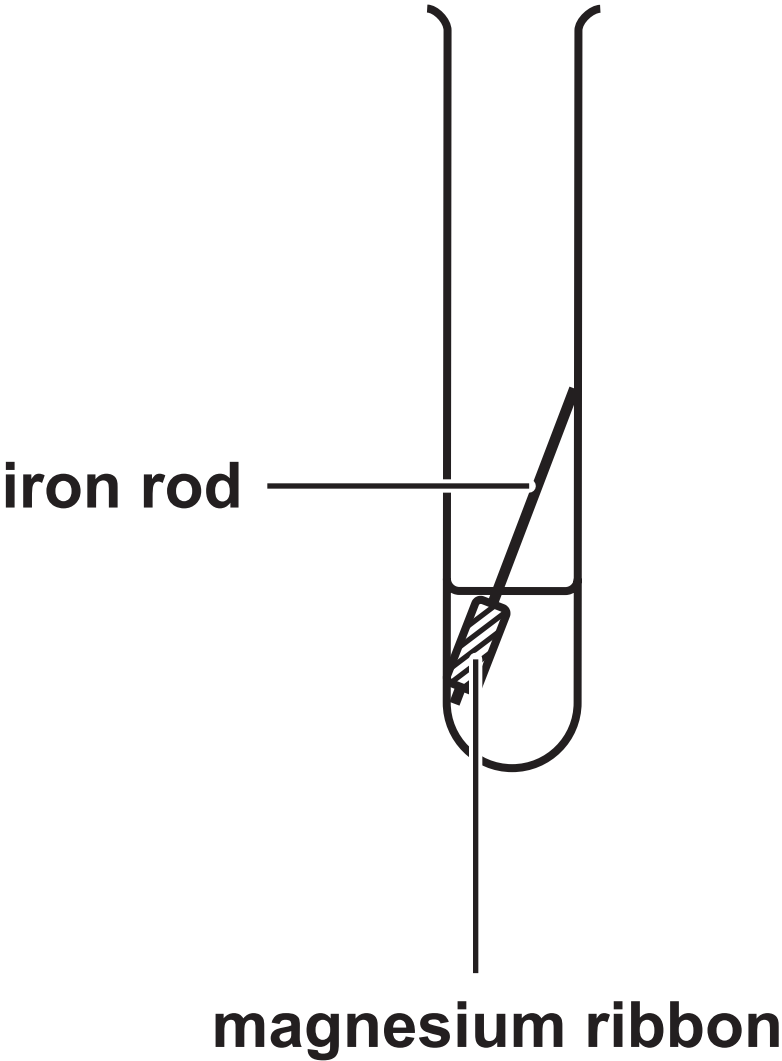
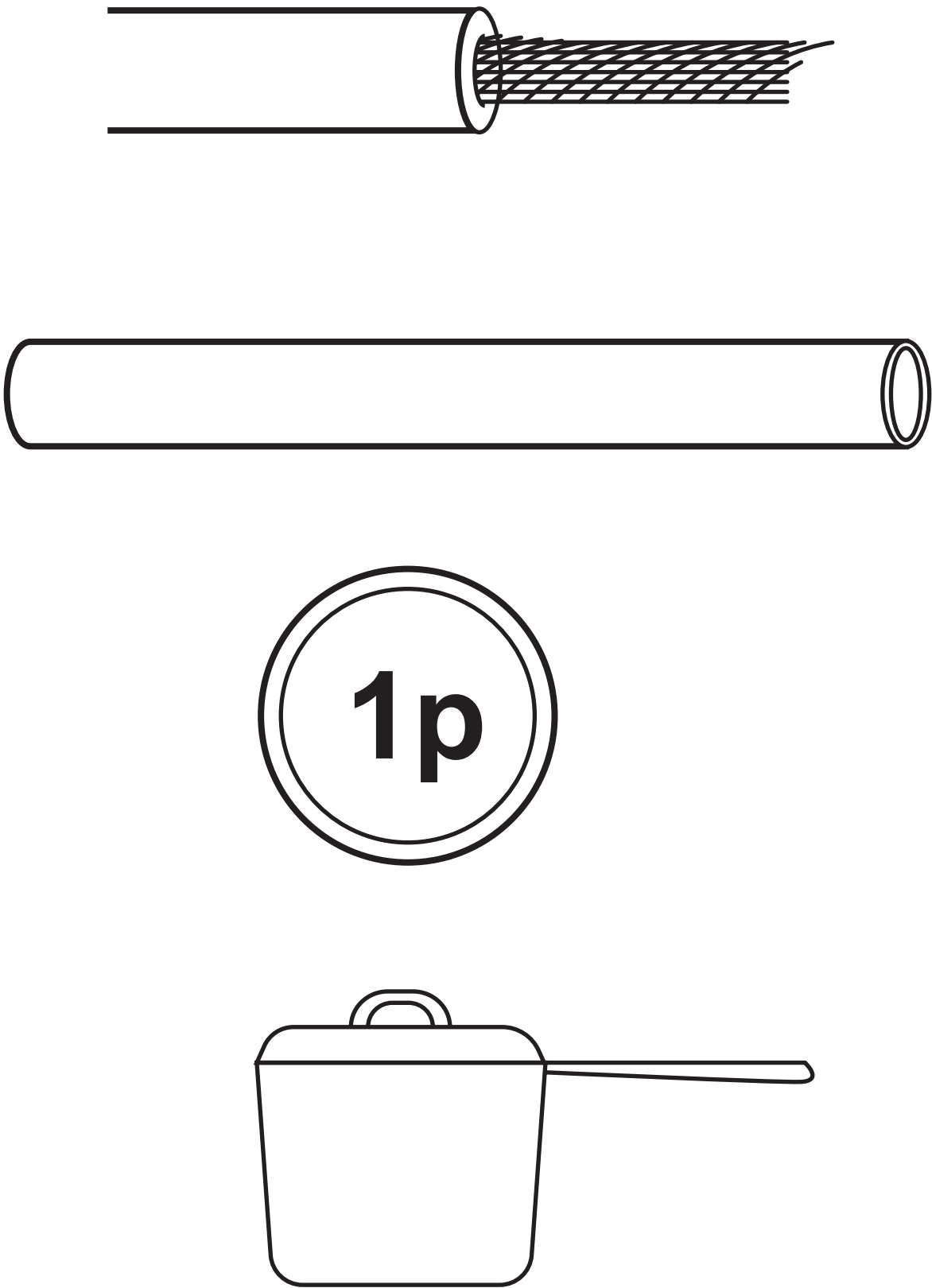


FIGURE 11

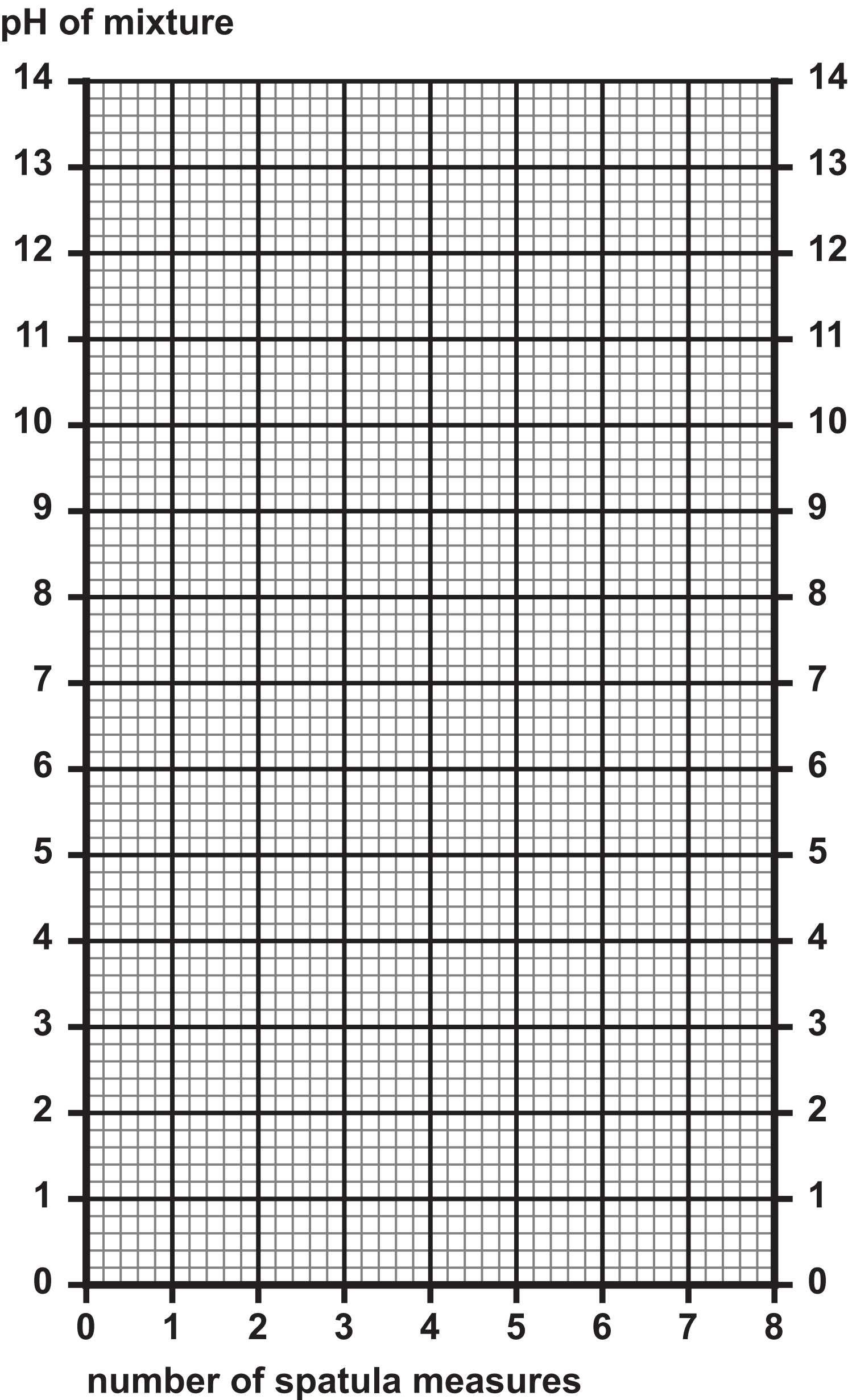
| | initial mass of iron rod in g | final mass of iron rod in g | change in mass in g |
|----------------|----------------------------------|--------------------------------|------------------------|
| boiling tube A | 7.00 | 7.00 | 0.00 |
| boiling tube B | 7.00 | 7.56 | |

Question 7(b)

FIGURE 12



Question 8(b)(iii)



Question 8(c)

FIGURE 14



FIGURE 15

| observations and results | | | |
|--------------------------|---|-------------------------------|------------------------------|
| | reaction with dilute sulfuric acid | gas bubbled through limewater | gas tested with a lit splint |
| solid A | bubbles seen colourless solution formed | no change | squeaky pop |
| solid B | blue solution formed some black solid remains at bottom of test tube | no gas produced | no gas produced |
| solid C | bubbles seen colourless solution formed | limewater turned cloudy | puts out lit splint |

Question 10(a)(i)

FIGURE 16

| | mass in tonnes |
|-------------------------------------|----------------|
| mass of titanium oxide | 100·00 |
| mass of titanium produced | 45·26 |
| theoretical mass of titanium formed | 60·00 |

Question 1(a)

FIGURE 2

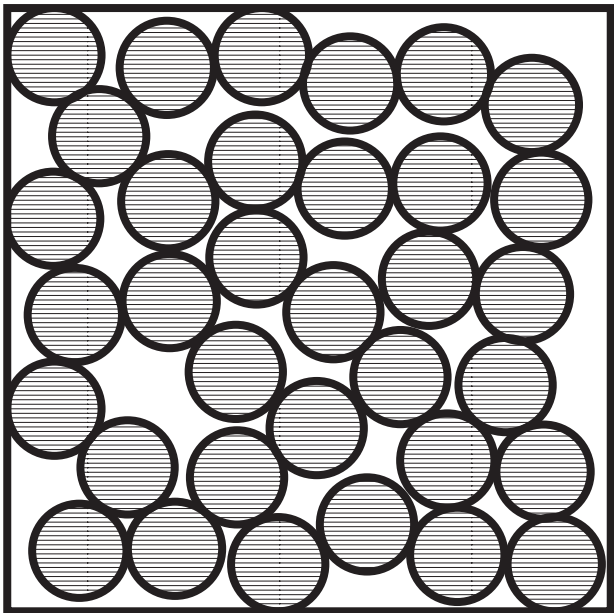
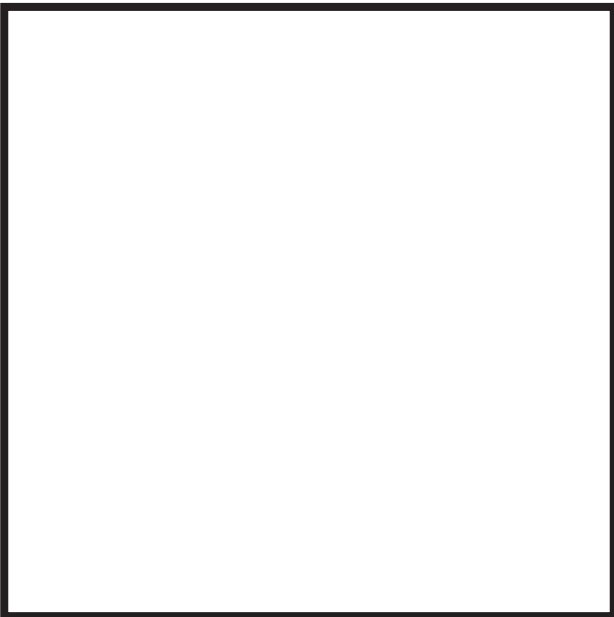
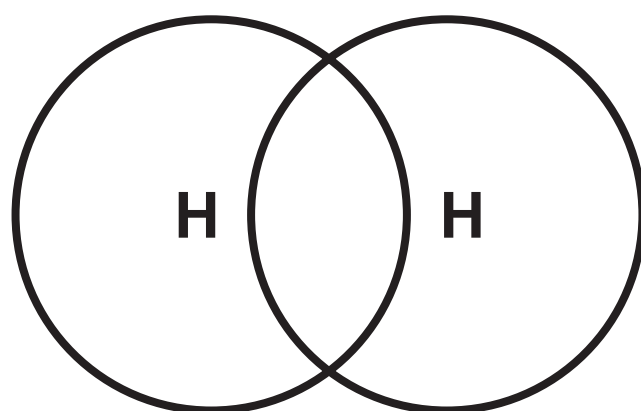


FIGURE 3



Question 2(a)(ii)

_____ + _____ ↑ _____

_____ + _____

↑

+

Question 6(c)(iii)

ELECTRODE

PRODUCT

hydrogen

anode

hydroxide

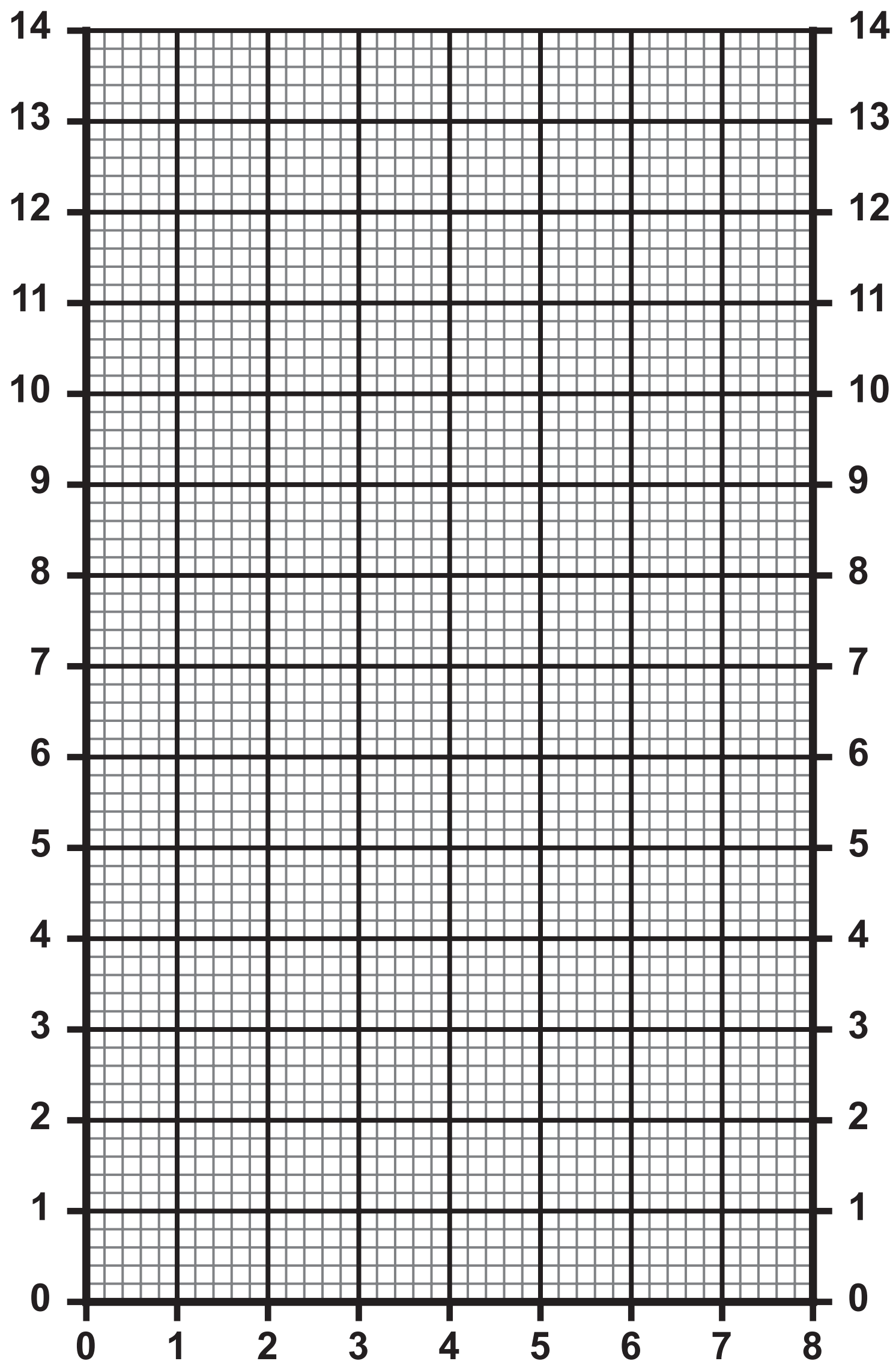
cathode

oxygen

sodium

Question 8(b)(iii)

pH of mixture



number of spatula measures

Source information:

Question 7(b)

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