

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					
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INSTRUCTIONS

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

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Spare Copies

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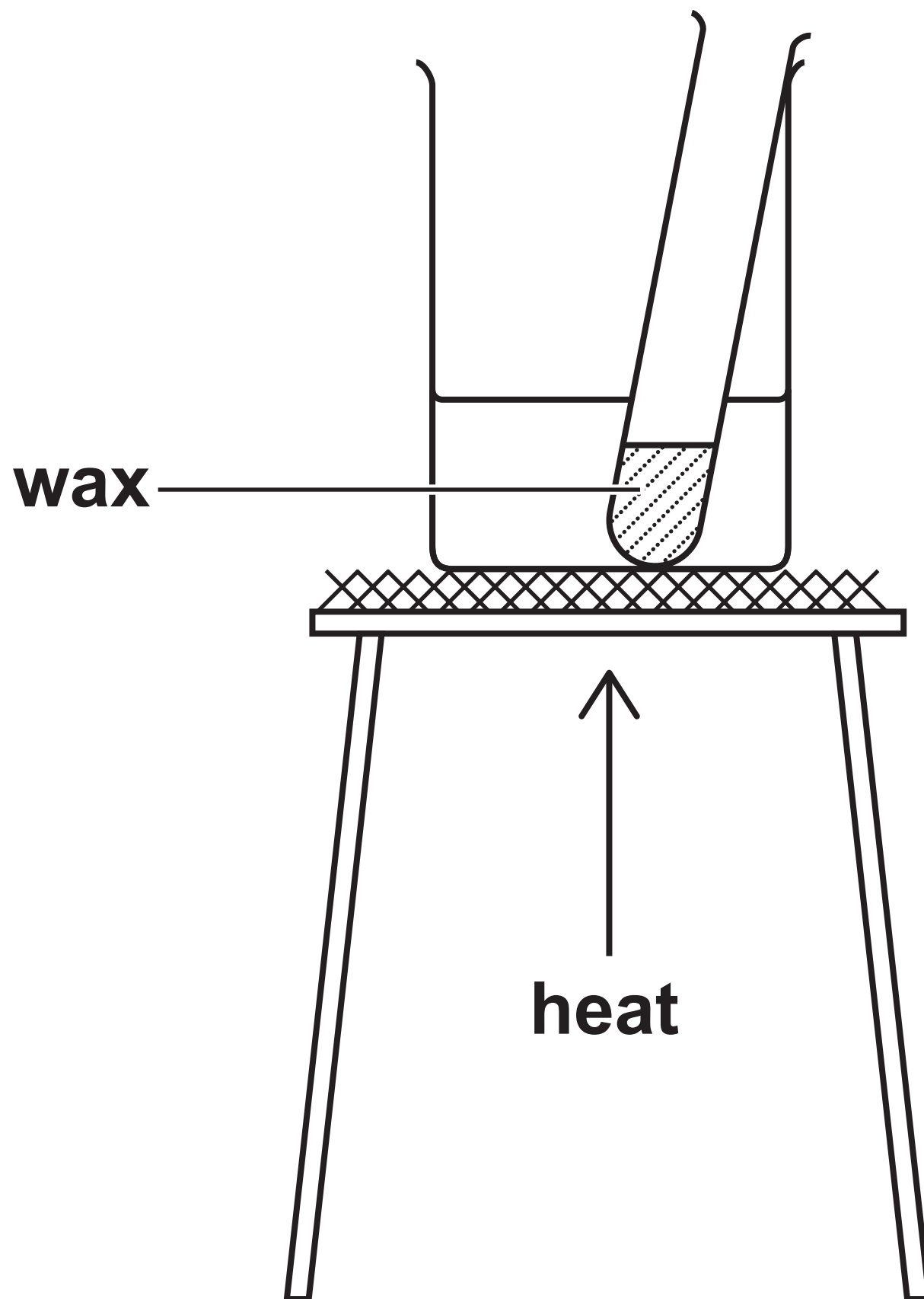
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Question 1

FIGURE 1



Question 1(a)

FIGURE 2

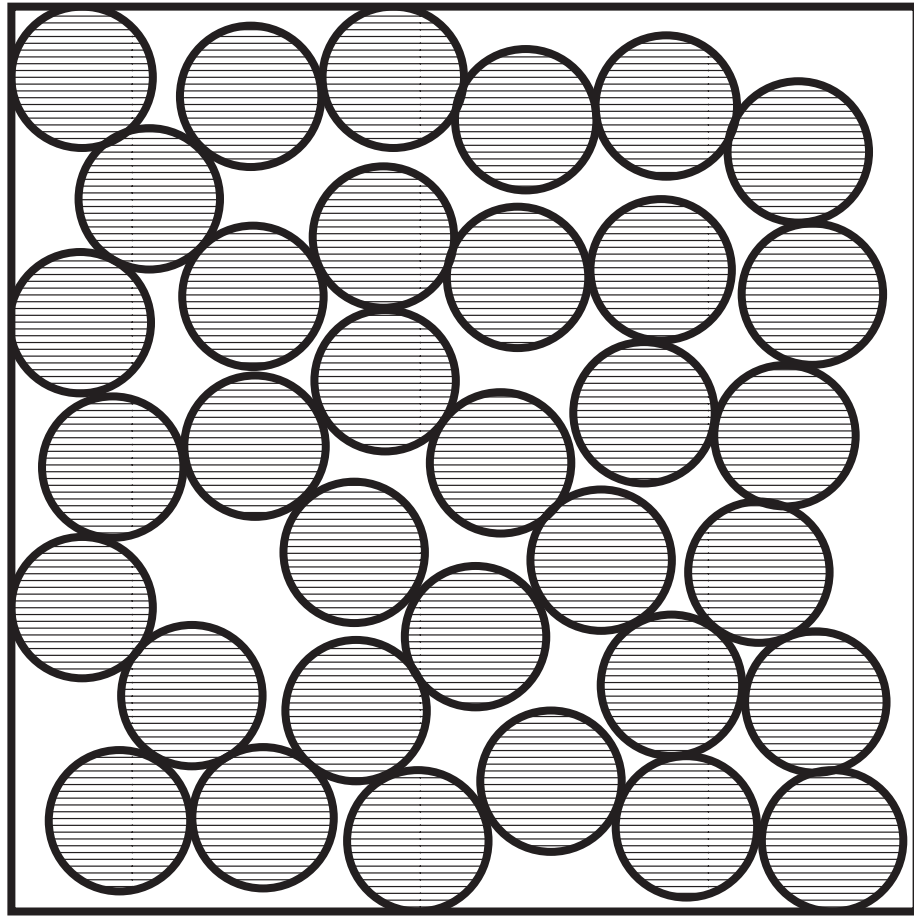
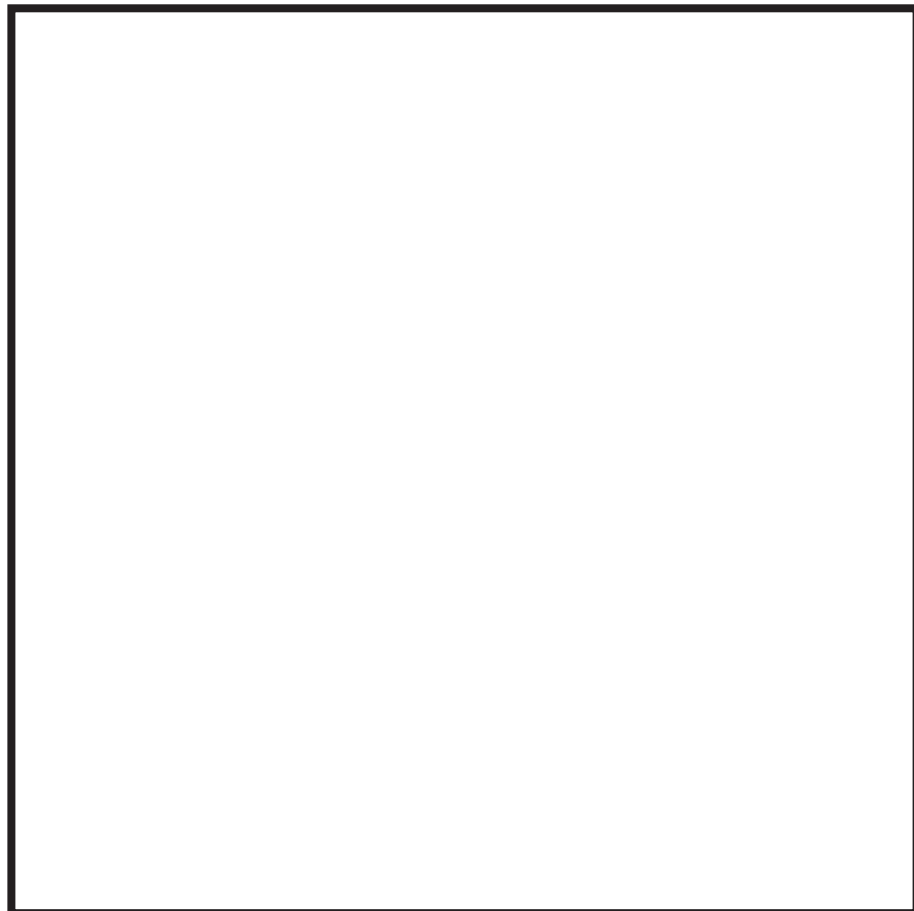
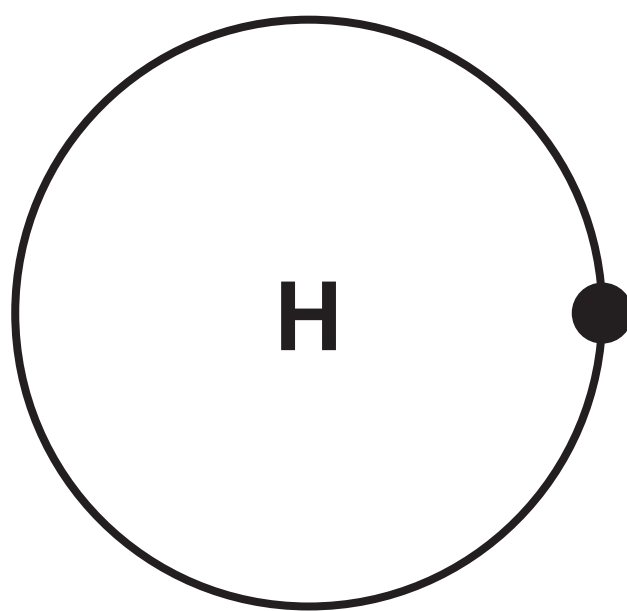
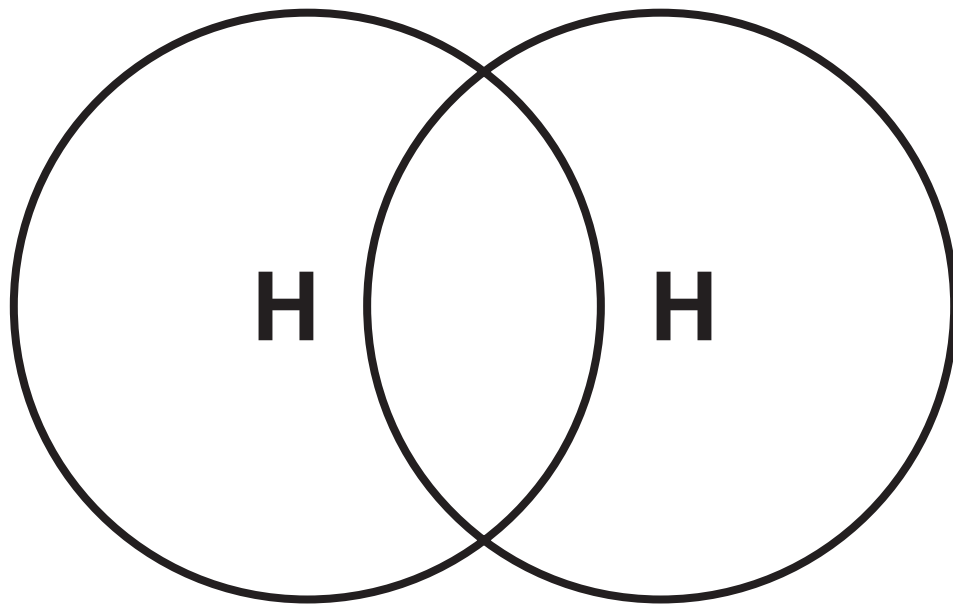


FIGURE 3



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

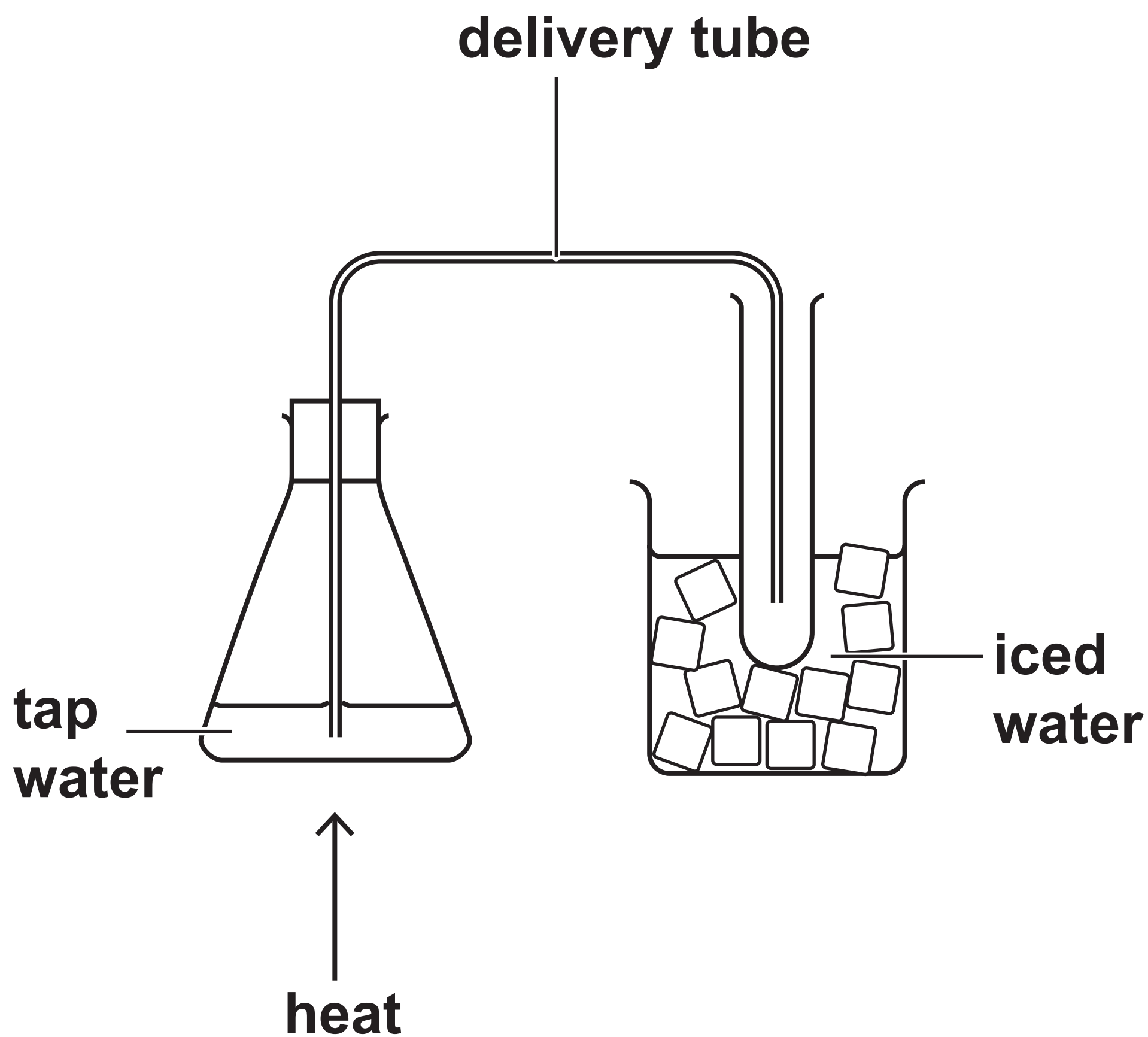
Question 2(a)(ii) continued.



Question 2(b)(i)

8

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

Question 3(c)**FIGURE 5**

Question 4

FIGURE 6

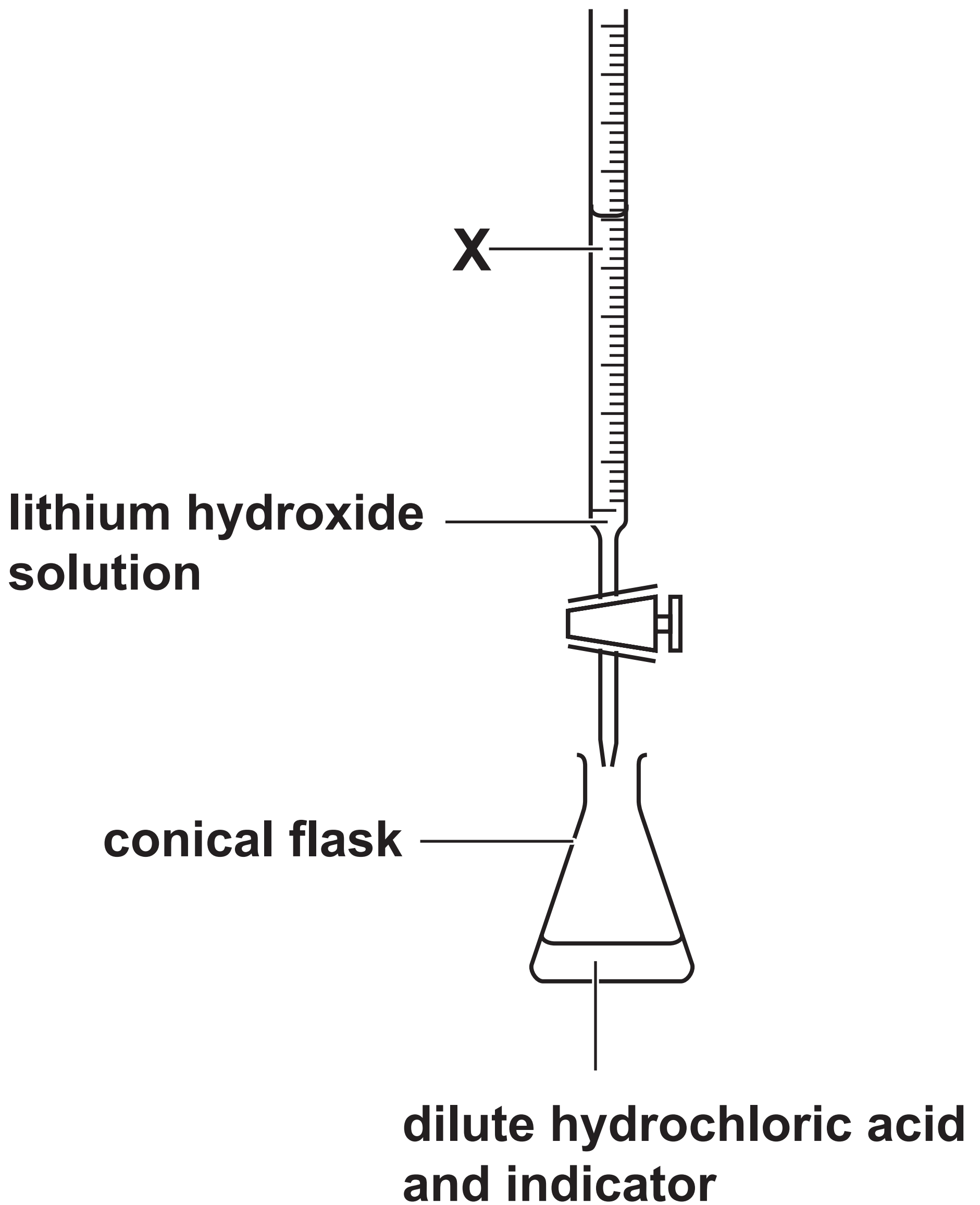


FIGURE 7

	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

Question 4(d)(i)

12

_____ + _____

↑

_____ + _____

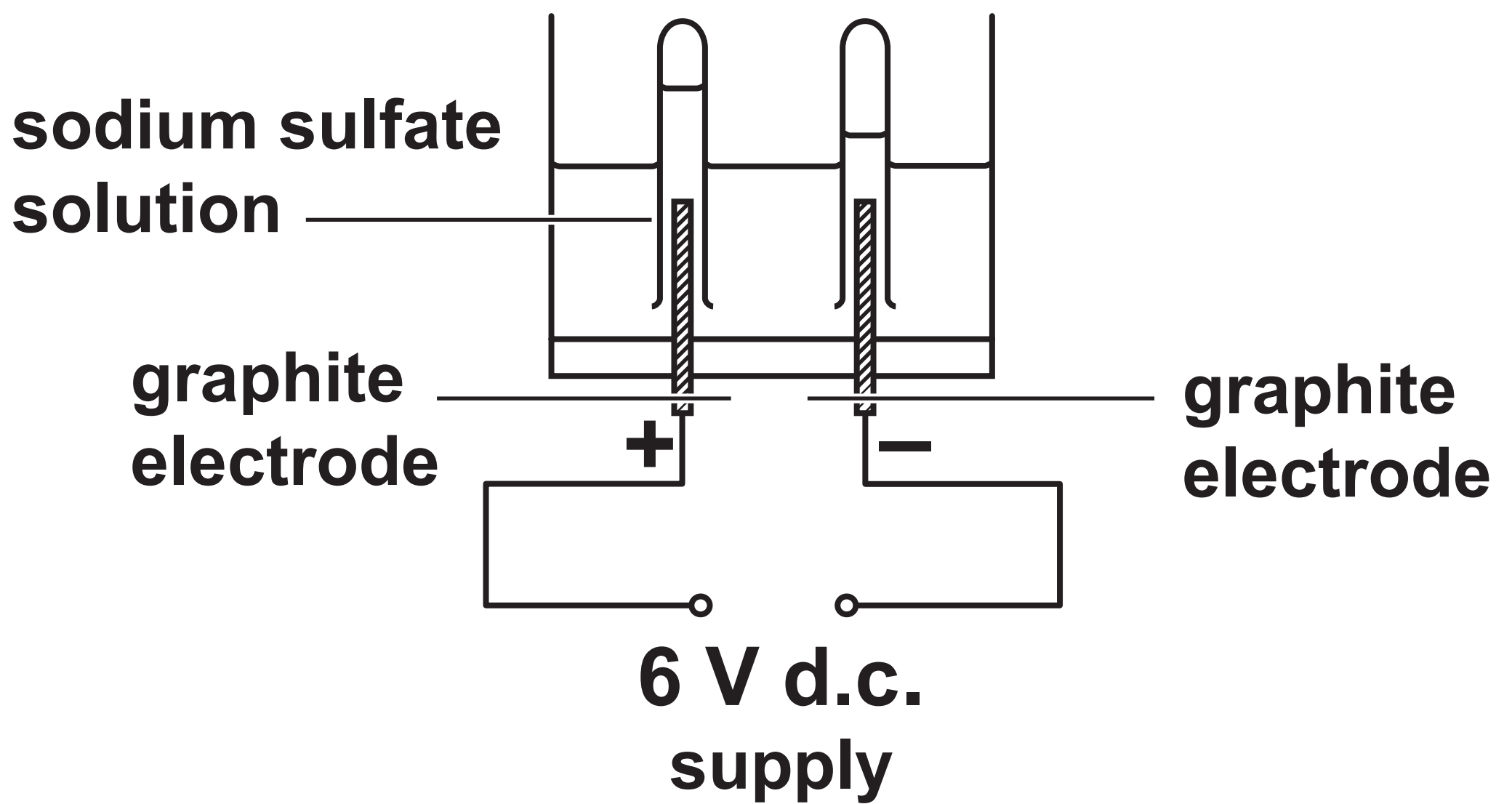
Question 5(a)

FIGURE 8



Question 6(c)

FIGURE 9



Question 6(c)(iii)

ELECTRODE

PRODUCT

anode

hydrogen

hydroxide

cathode

oxygen

sodium

Question 7(a)

FIGURE 10

boiling tube A

boiling tube B

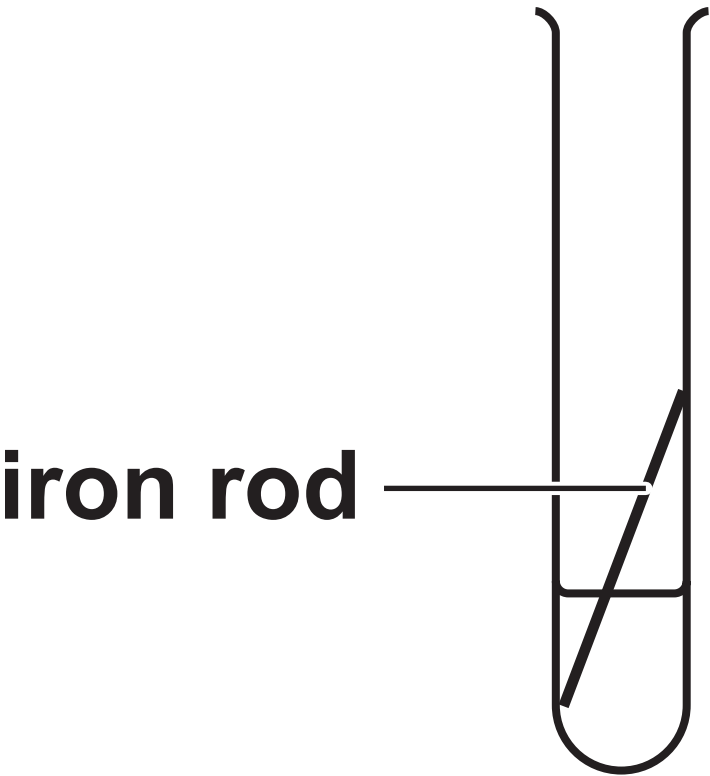
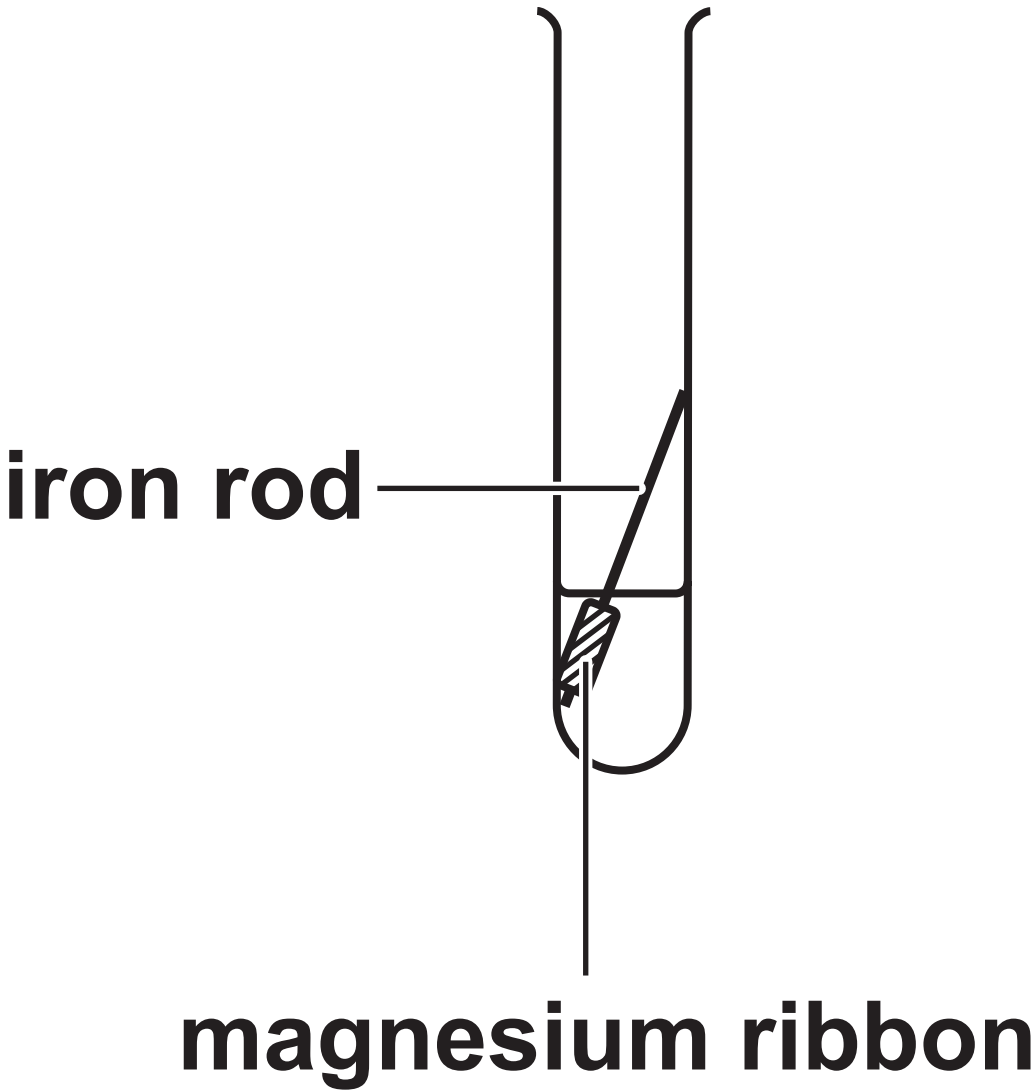
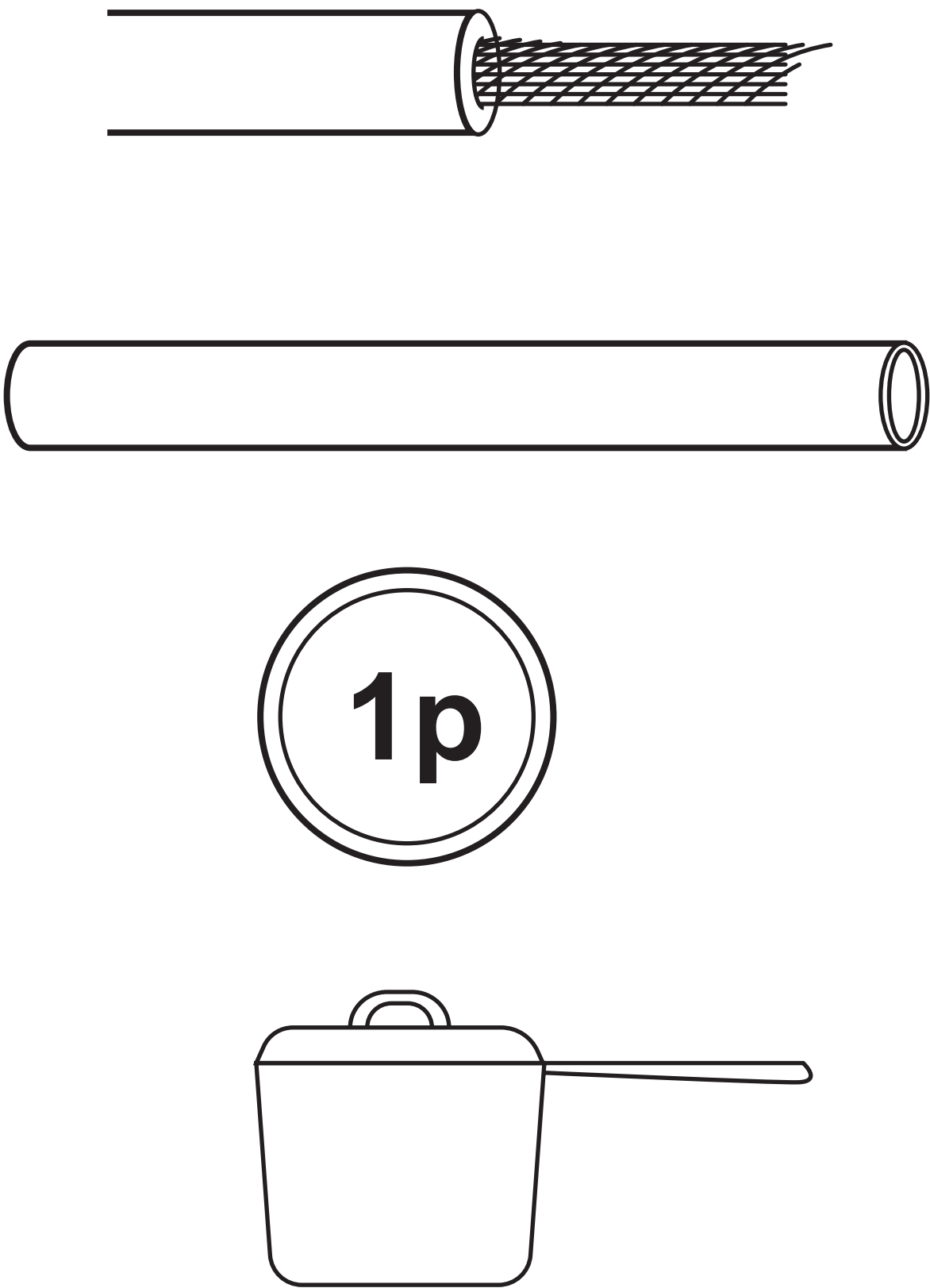


FIGURE 11

	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	

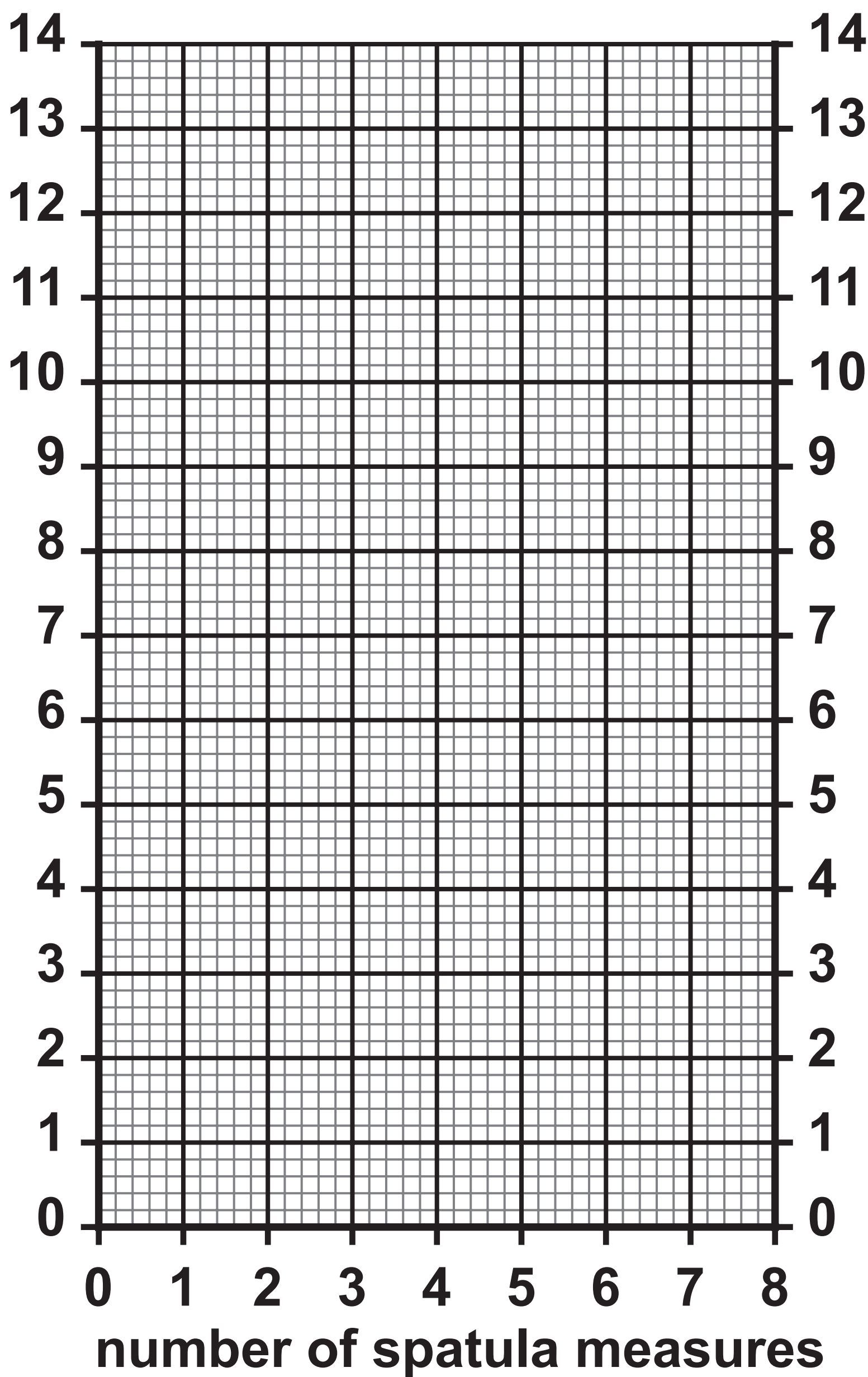
Question 7(b)

FIGURE 12



Question 8(b)(iii)

pH of mixture



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

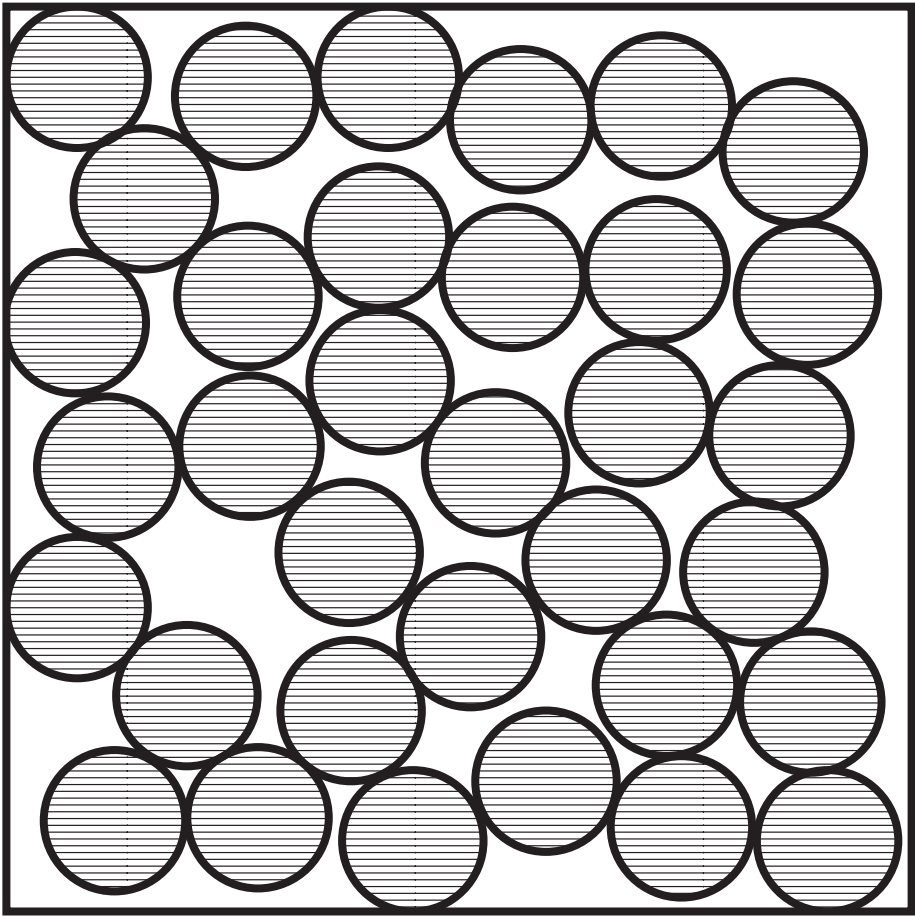
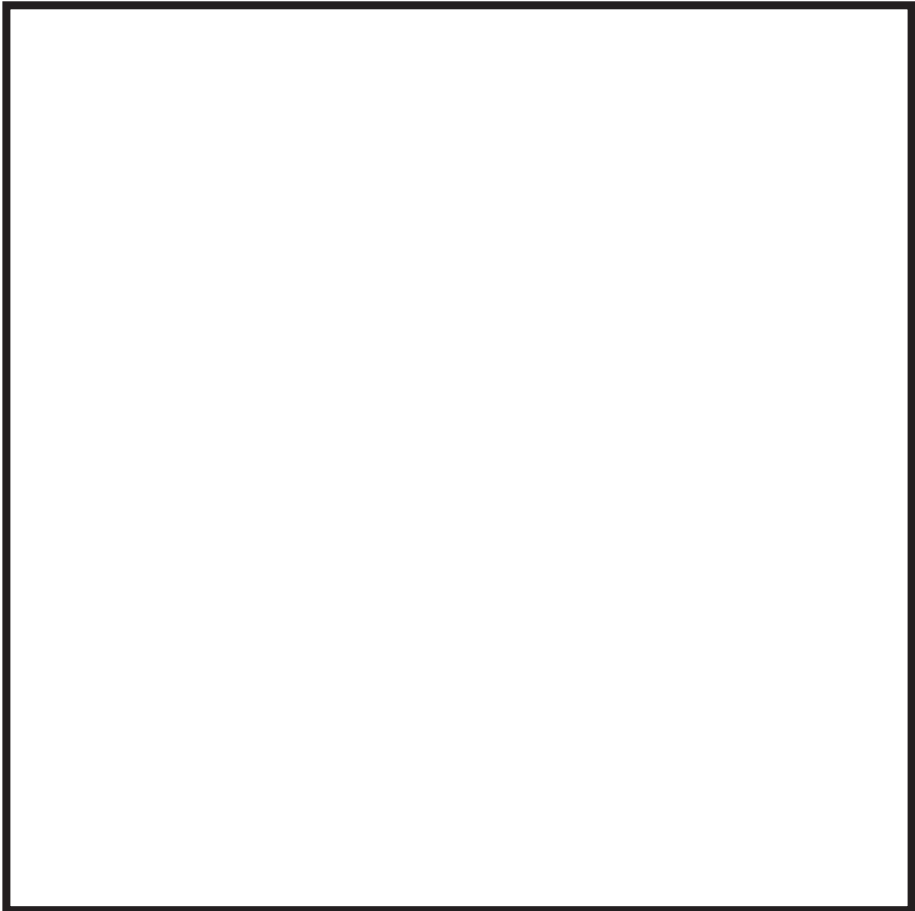
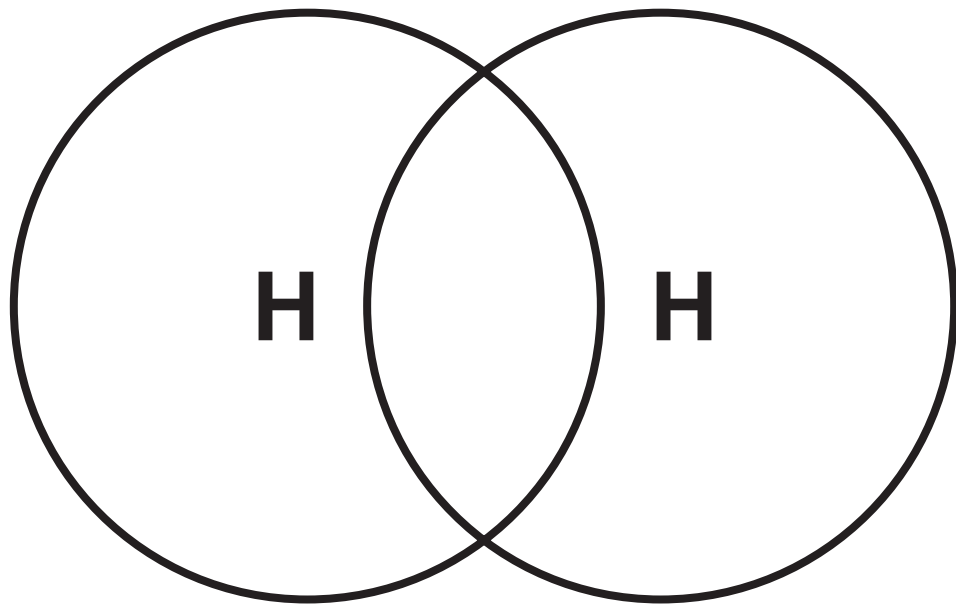


FIGURE 3



Question 2(a)(ii)



Question 2(b)(i)

25

$$\underline{\hspace{2cm}} + \underline{\hspace{2cm}} \uparrow \underline{\hspace{2cm}}$$

Question 4(d)(i)

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

Question 6(c)(iii)

ELECTRODE

PRODUCT

anode

hydrogen

hydroxide

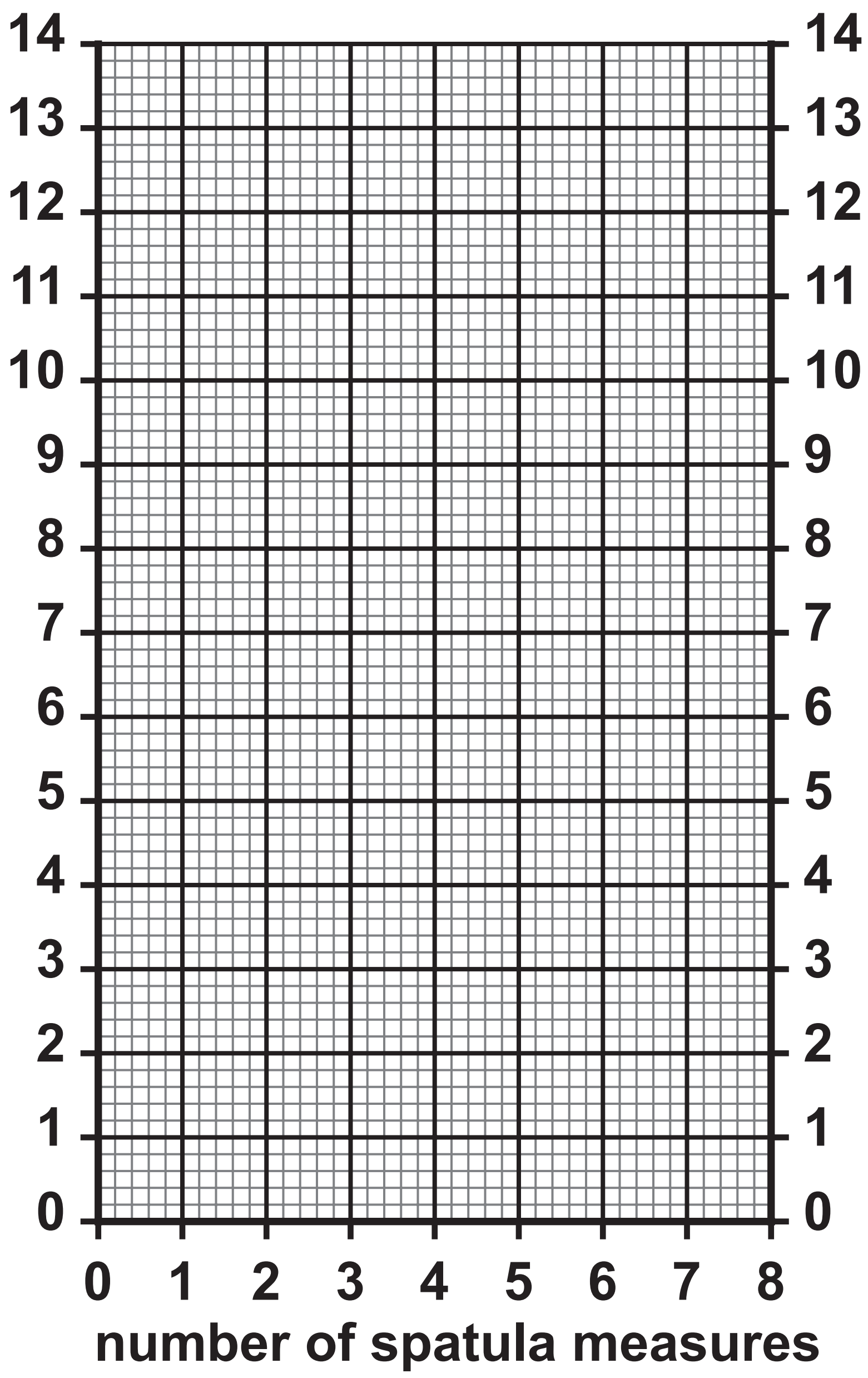
cathode

oxygen

sodium

Question 8(b)(iii)

pH of mixture



Source information:

Question 7(b)

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