

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

Chemistry  
PAPER 2  
Higher Tier

Tuesday 13 June 2023 – Morning

Diagram Booklet

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

Surname					
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Centre Number					
Candidate Number					

## INSTRUCTIONS

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

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

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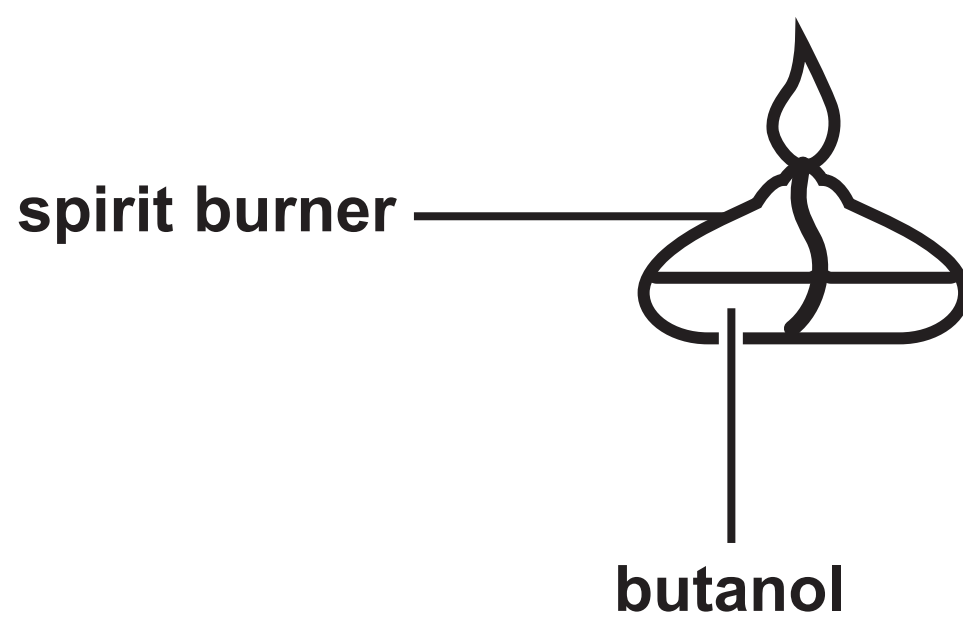
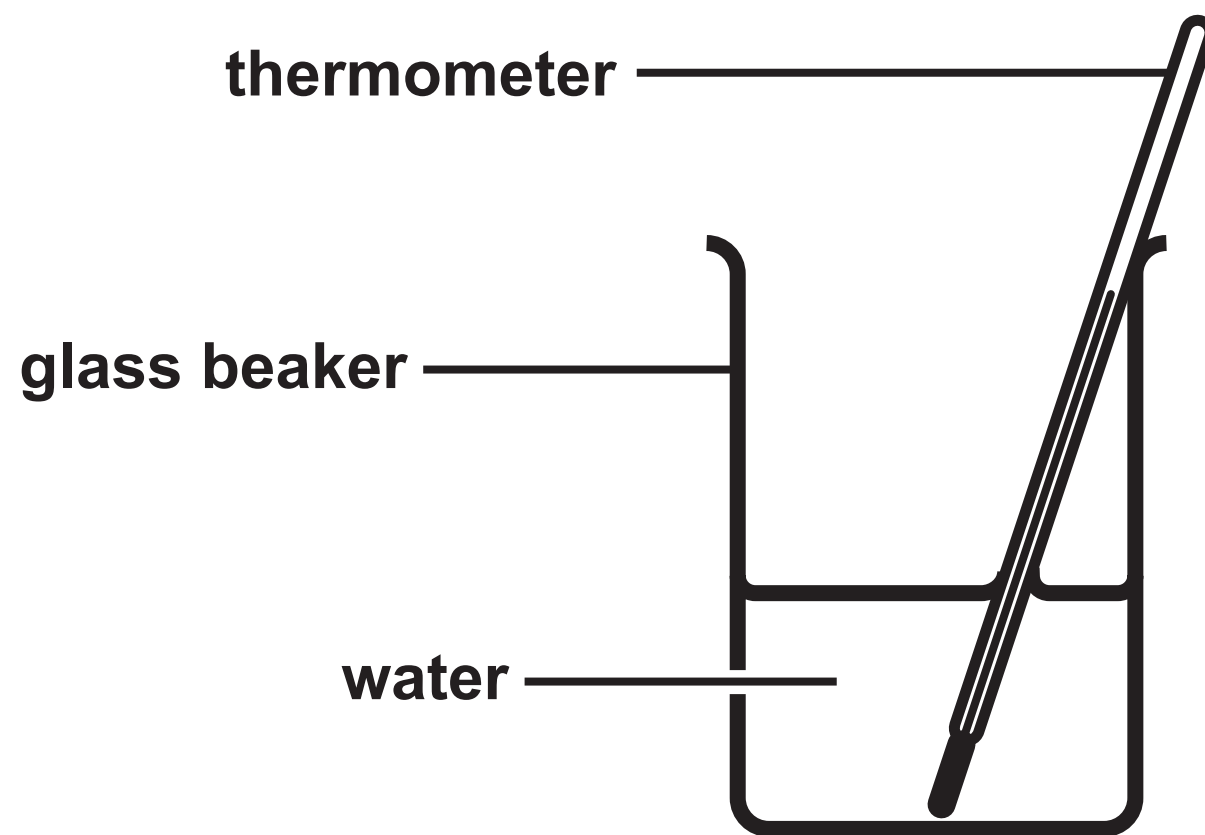
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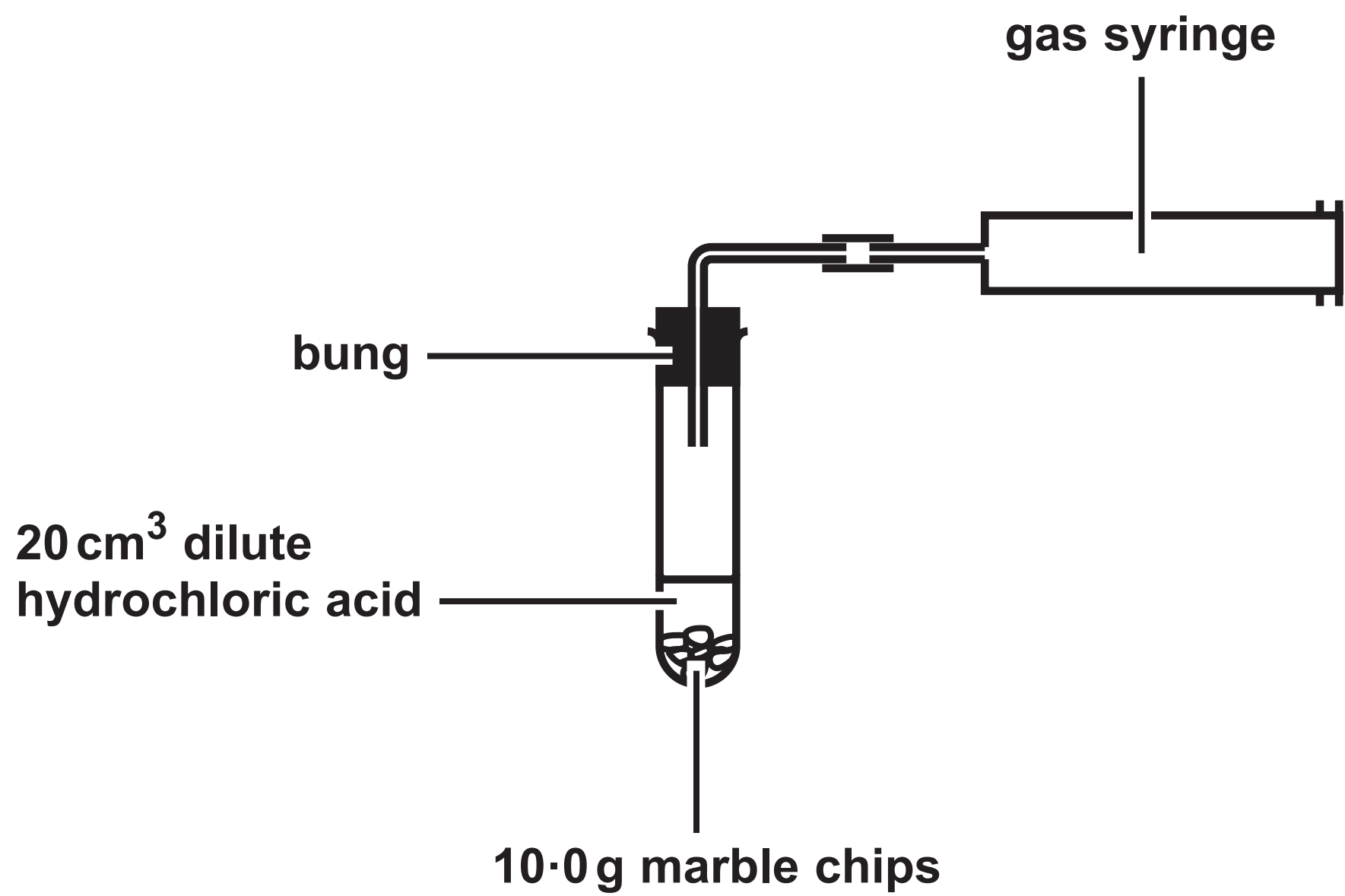
## Question 1

FIGURE 1



## Question 2

FIGURE 3



Question 2(a) and 2(c)

volume of  
gas in cm<sup>3</sup>

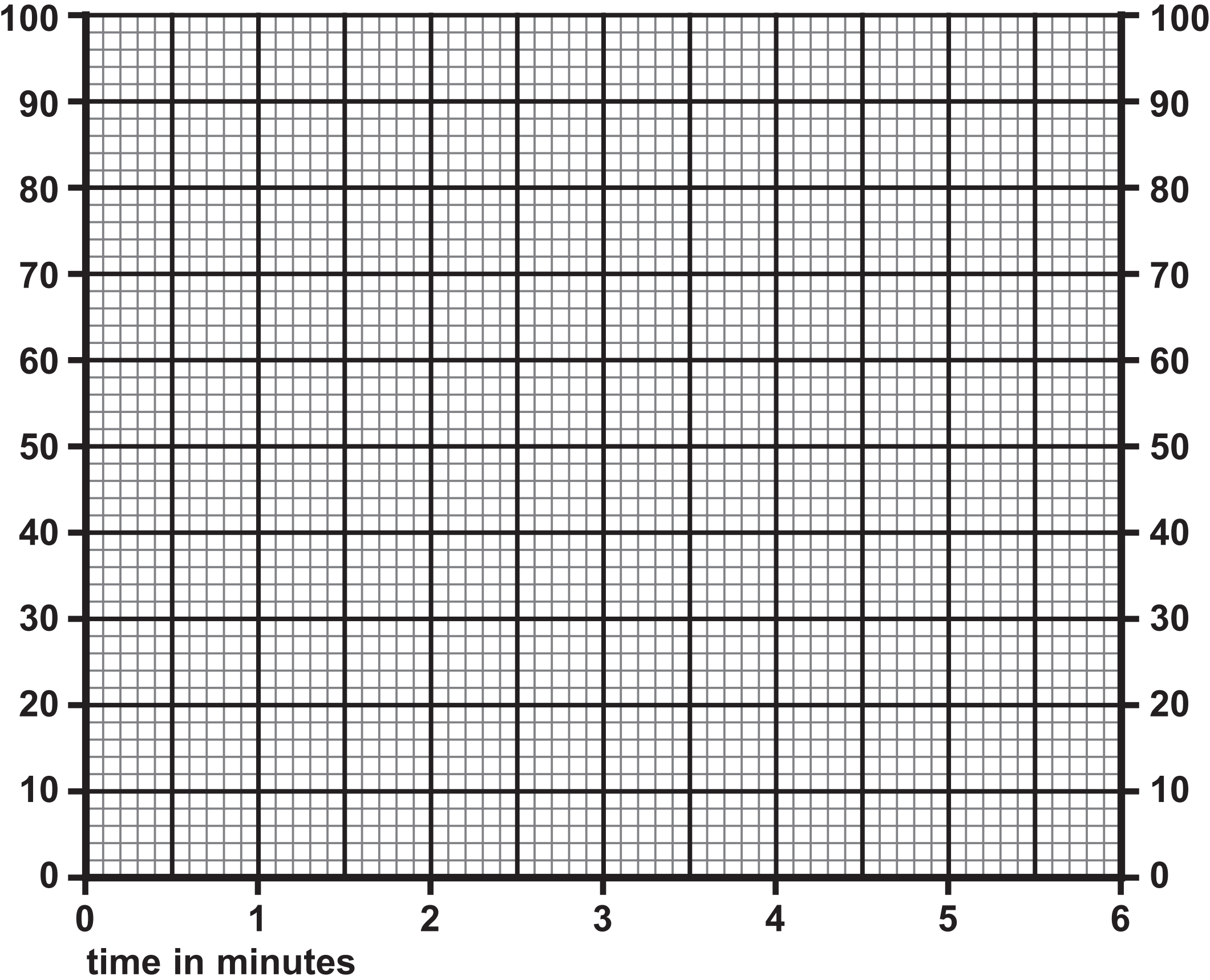


FIGURE 5

time interval	0 to 1 minute	1 to 2 minutes	2 to 3 minutes	3 to 4 minutes	4 to 5 minutes
rate of reaction in $\text{cm}^3 \text{min}^{-1}$	52	26		6	3

Question 3

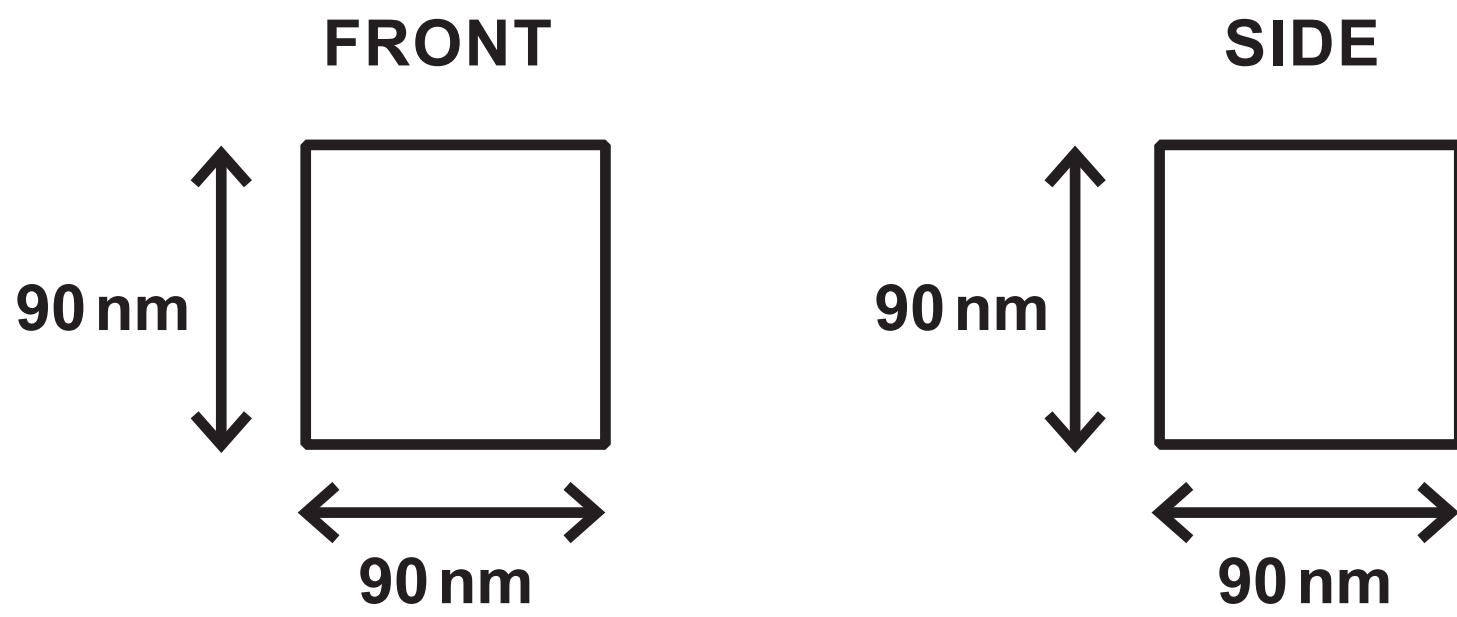
FIGURE 6

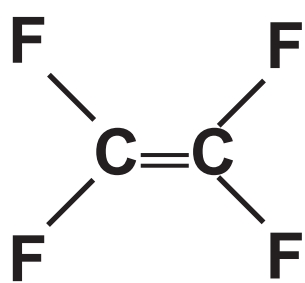
group 1 metal	atomic number	relative atomic mass
lithium	3	7
sodium	11	23
potassium	19	39
rubidium	37	85
caesium	55	133



## Question 4(b)

FIGURE 7

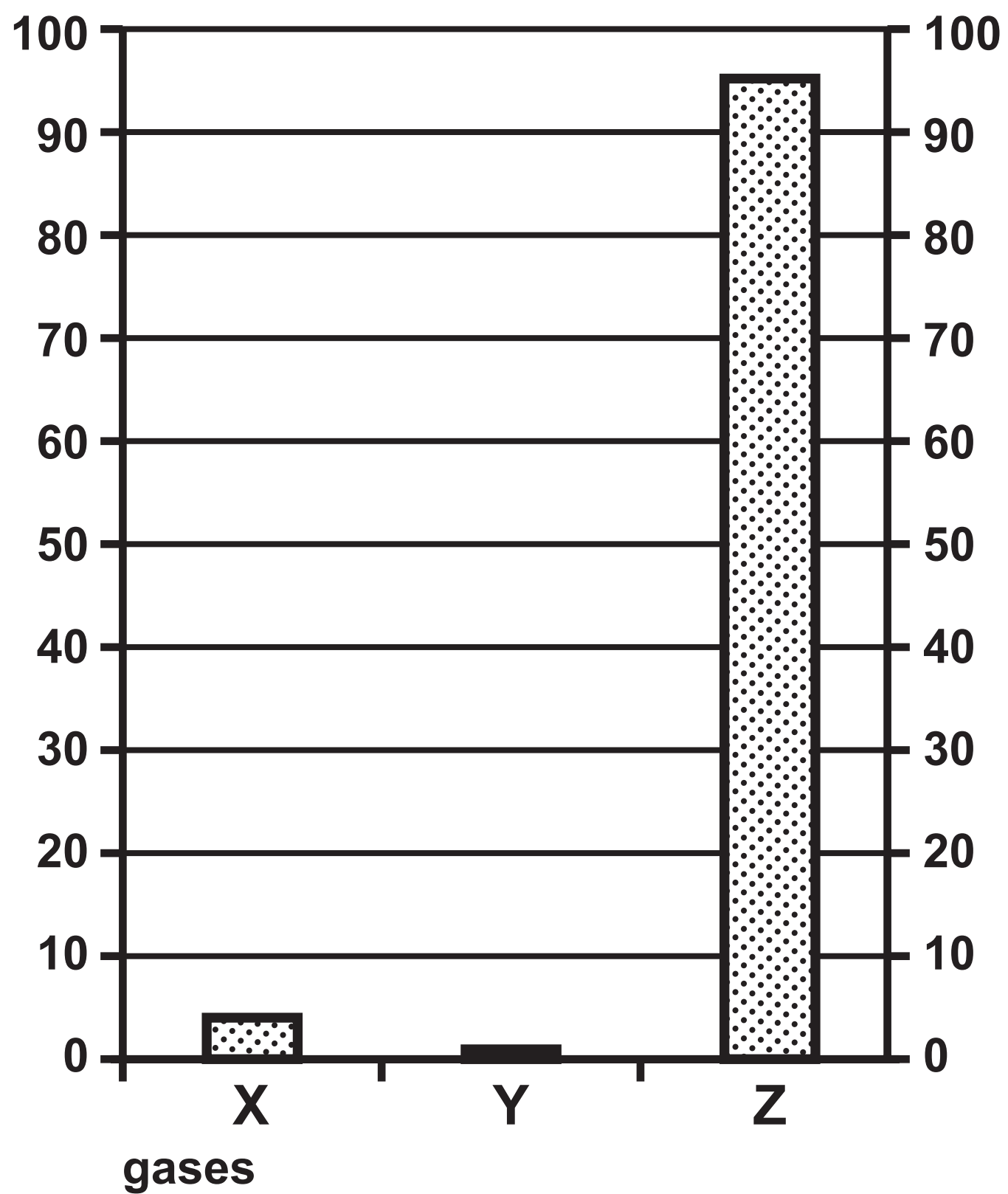


**Question 4(c)****FIGURE 8**

## Question 5(a)

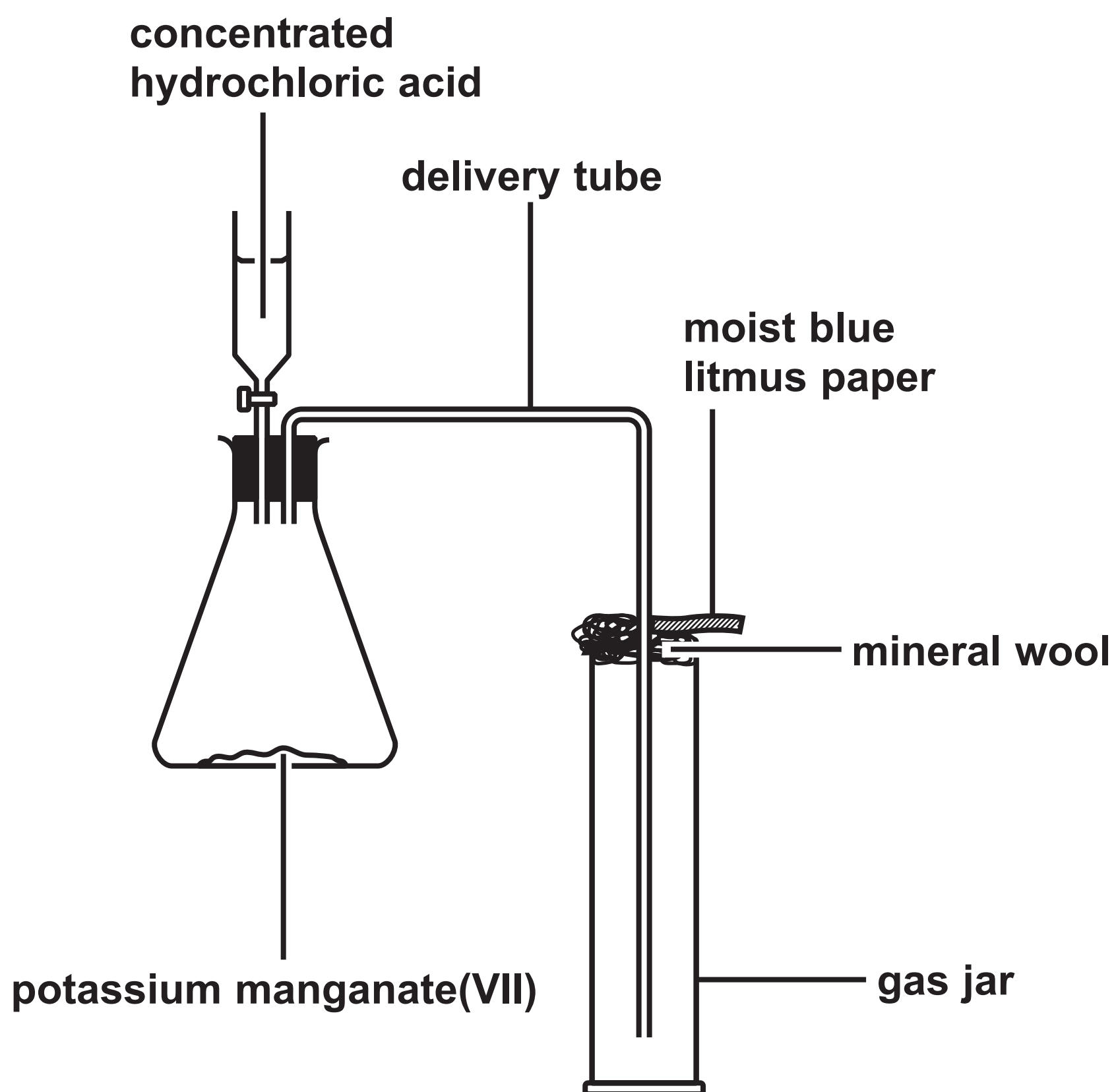
FIGURE 9

percentage of gas in  
Earth's early atmosphere











## Question 6

FIGURE 10



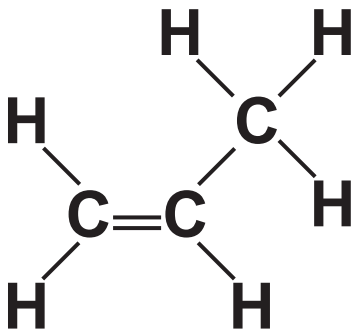
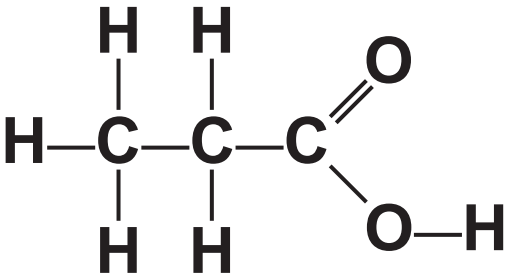
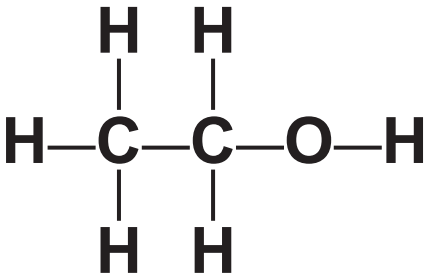
## Question 6(a)

FIGURE 11

substance	hazard symbol
concentrated hydrochloric acid	 
potassium manganate(VII)	  
chlorine gas	  

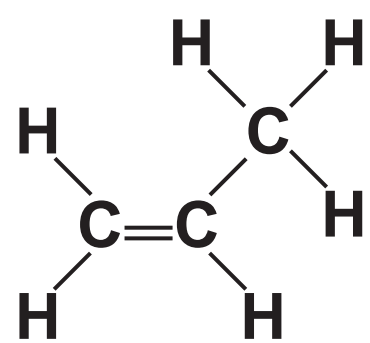
## Question 7(a)(i)

FIGURE 12

propene	propanoic acid	ethanol
		

## Question 7(a)(ii)

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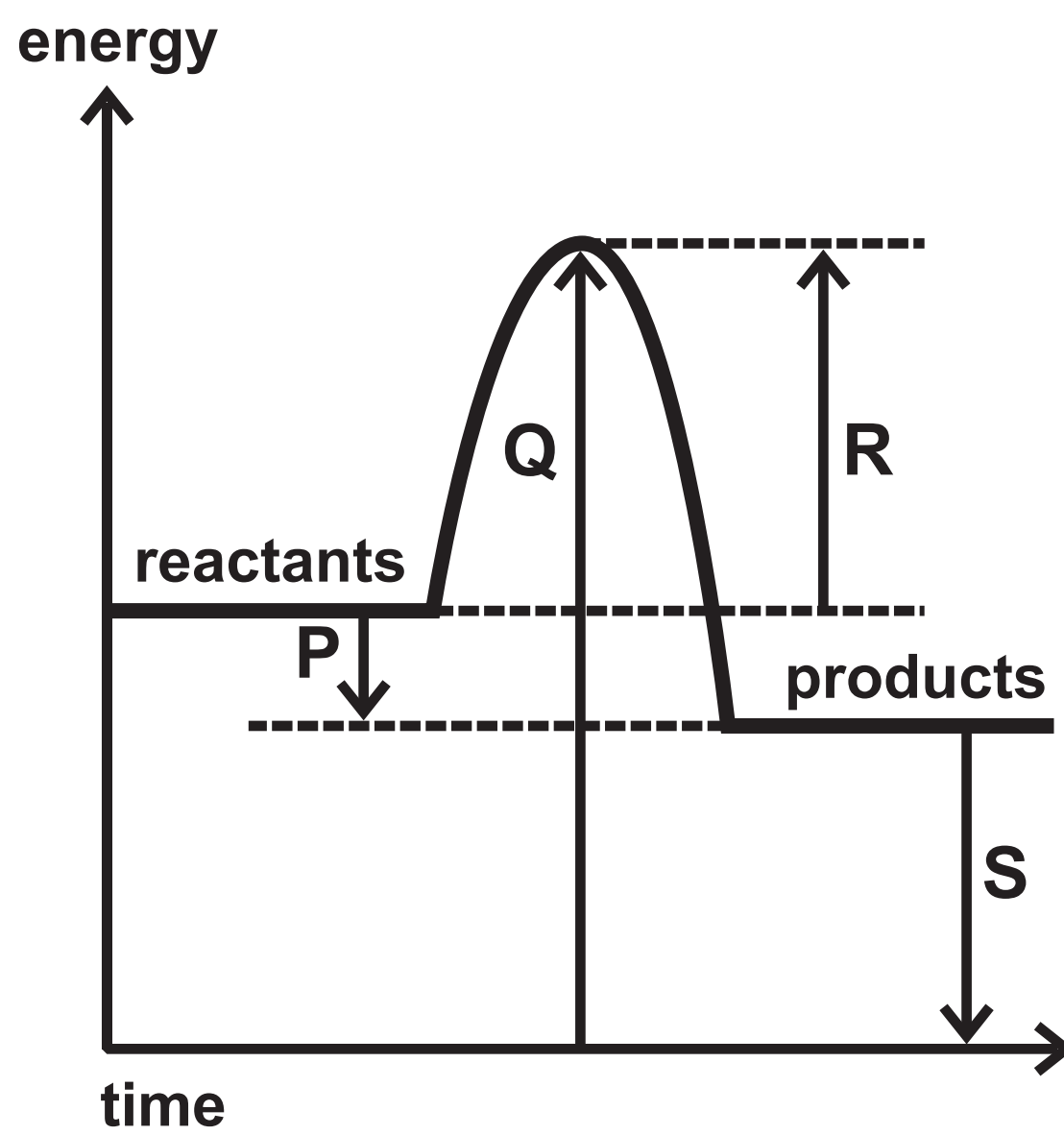


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## Question 8(b)

FIGURE 13





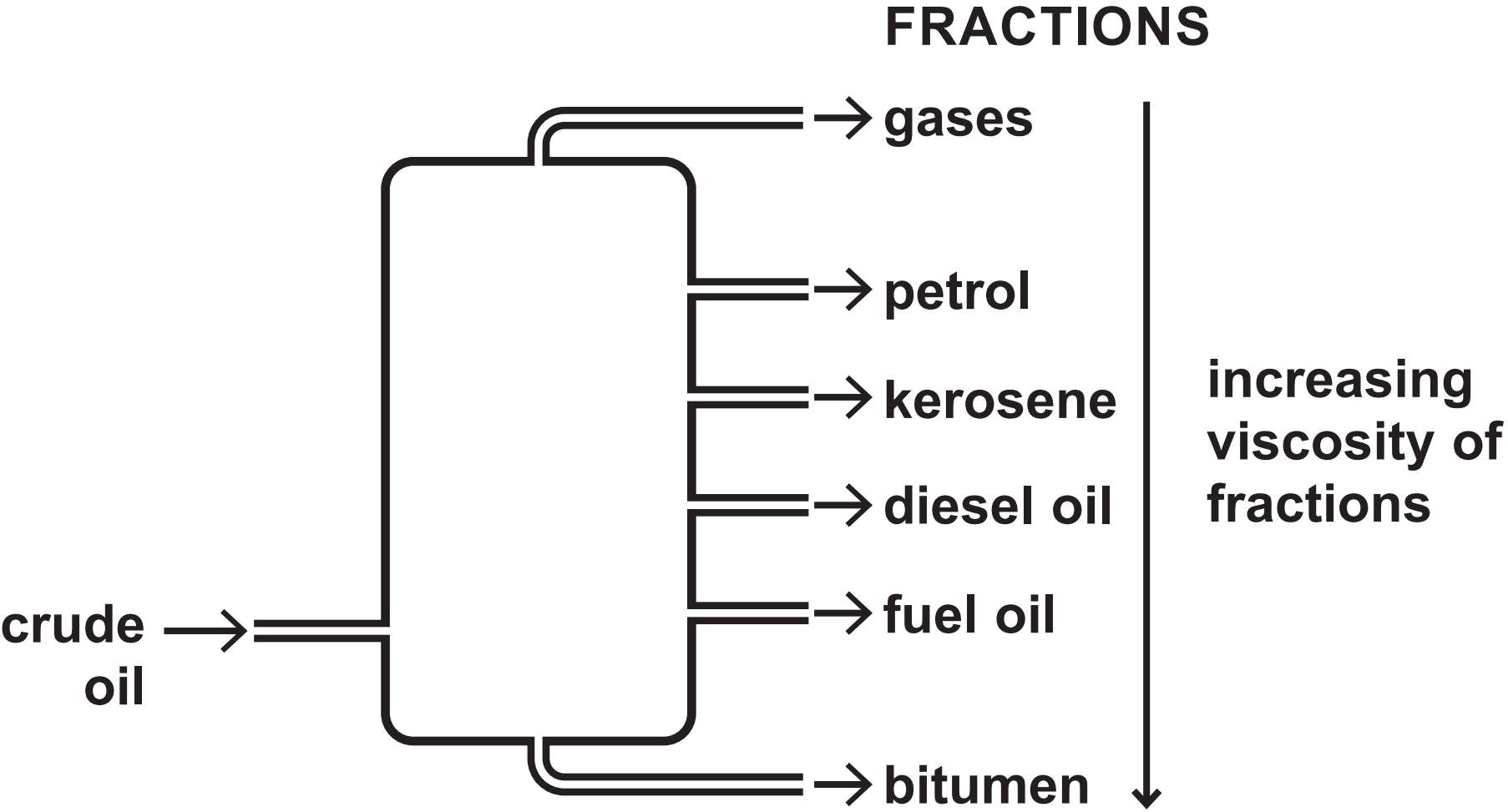
## Question 8(b)(iii)

FIGURE 14

bond	bond energy in $\text{kJ mol}^{-1}$
$\text{N}\equiv\text{N}$	944
$\text{H}-\text{H}$	436
$\text{H}-\text{N}$	388

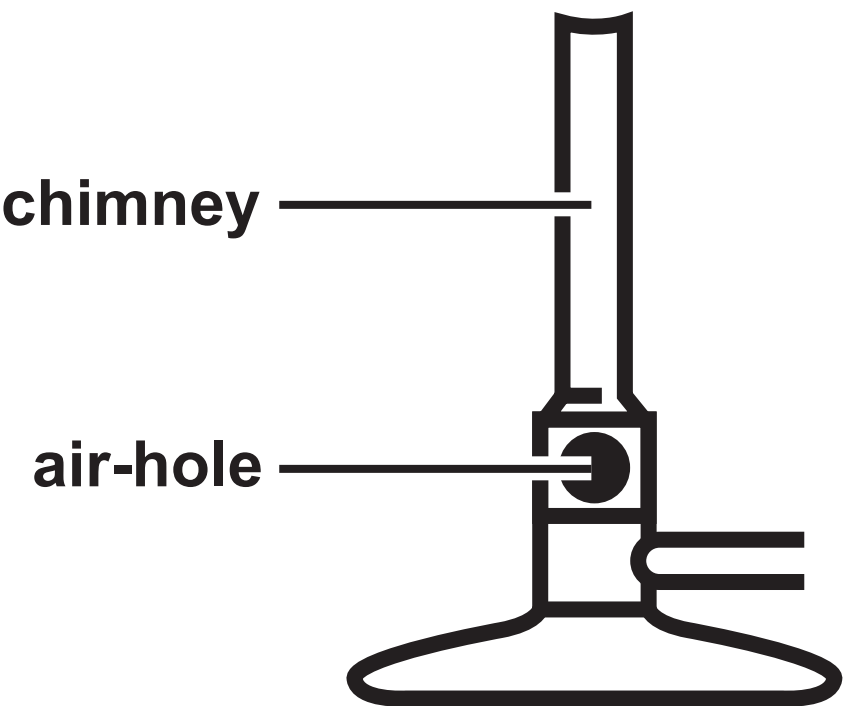
Question 9(a)

FIGURE 15



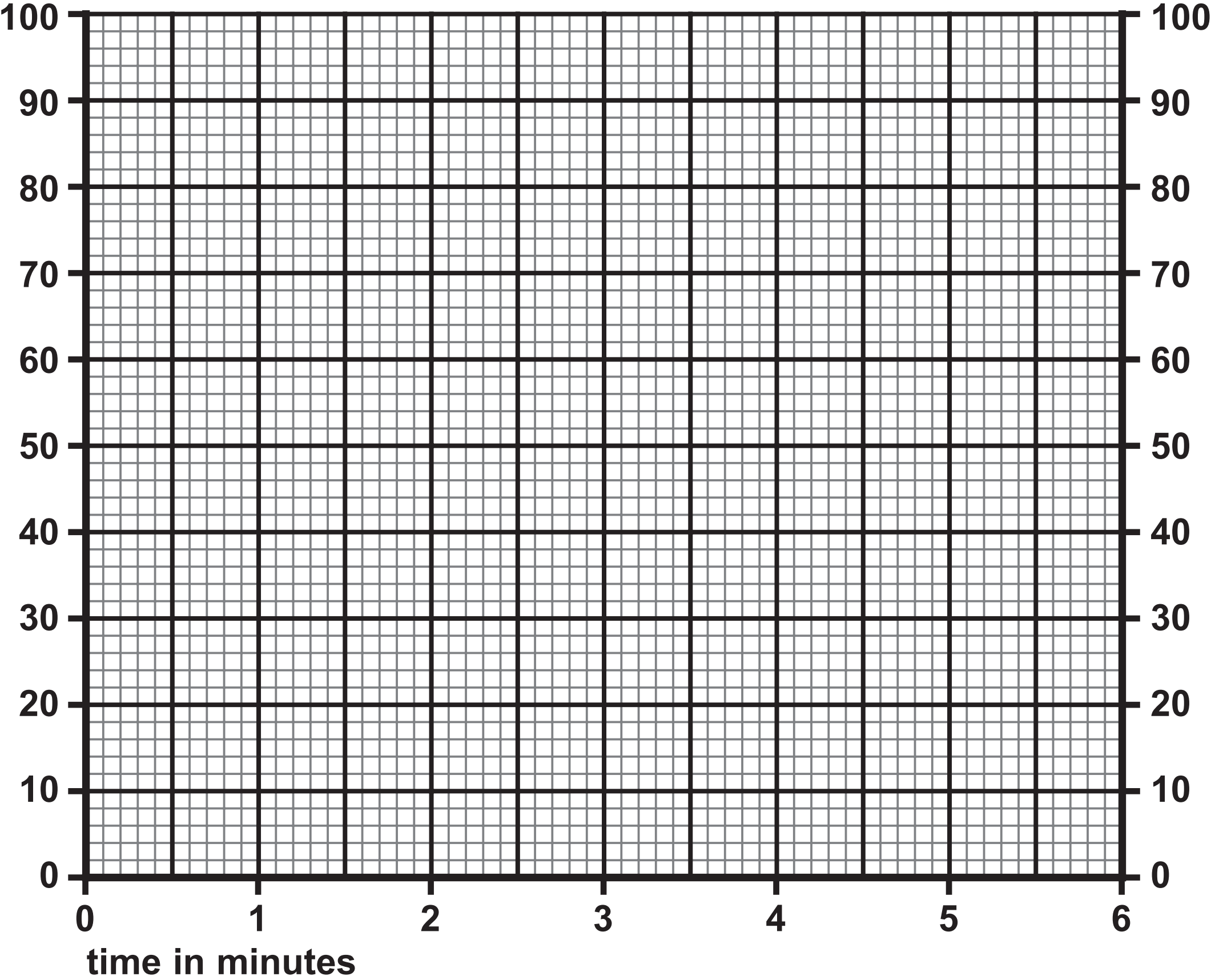
Question 9(c)

FIGURE 16



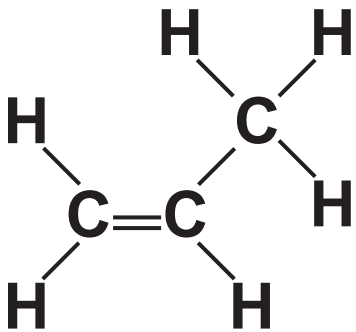
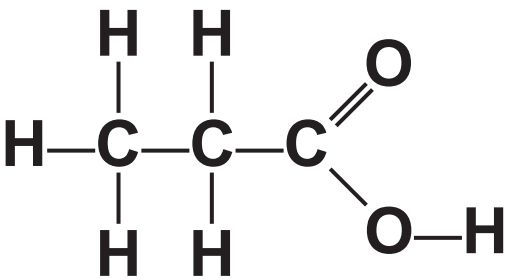
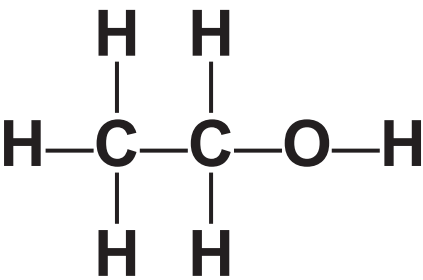
Question 2(a) and 2(c)

volume of  
gas in cm<sup>3</sup>



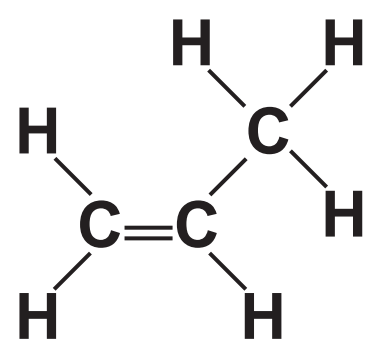
## Question 7(a)(i)

FIGURE 12

propene	propanoic acid	ethanol
		

## Question 7(a)(ii)

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