THE pH SCALE - HOMEWORK

 $\overset{\,\,{}_{\,\,}}{}$ Use the information in the following table to answer the questions below.

Indicator	Colour of indicator in solution of pH													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
bromothymol blue	yellow green			blue										
litmus	red			pur	purple blue									
methyl orange		red		ora	nge	yellow								
phenolphthalein	colourless						ра	ale pi	nk		pur	rple		

a) What is the colour of each indicator in a neutral solution?

bromothymol blue:_____ methyl orange: _____

litmus:

phenolphthalein: _____

b) Complete the following table to:

(i) show the colour of each indicator in each substance.

(ii) state whether each substance is acidic, neutral or alkaline.

Substance		Acidic, neutral or alkaline?			
	bromothymol blue	litmus	methyl orange	phenolphthalein	
white vinegar	green		orange		
oven cleaner		blue			
orange juice	yellow				acidic
milk		purple			
ammonia solution				purple	

c) Circle the most likely pH of a solution made by mixing together equal amounts of white vinegar and ammonia solution. Why?

3	5	7	9	11

The pH would be because

d) Hydrochloric acid has a pH of 1. What would be the colour of a mixture of methyl orange and litmus in hydrochloric acid? Why?

The colour would be because

e) How would you measure the pH of a coloured substance such as red ink? Why?

I would measure the pH

because