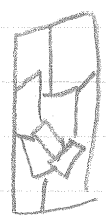
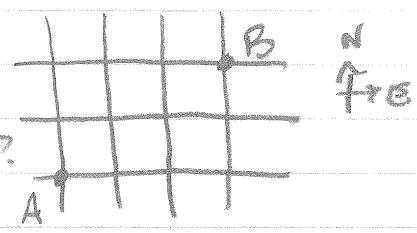


Q9 # color theorem: How many colors do you need so that given any map you can color regions so no adjacent regions have the same color?



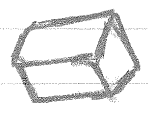
Q2 ON A STREET GRID AS SHOWN:  
 How many routes from A to B always going north or east?



Q3 What's the quickest way of sorting a list of names into alphabetical order?

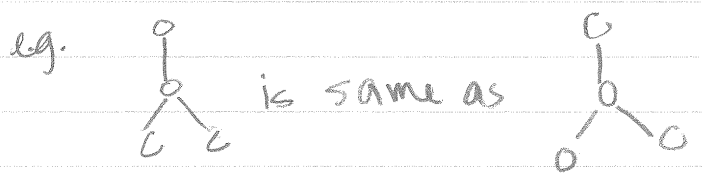
Q4 What is next in sequence 1, 1, 2, 3, 5, 8, 13, ...

Q5 What's more symmetric, a cube or a tetrahedron?

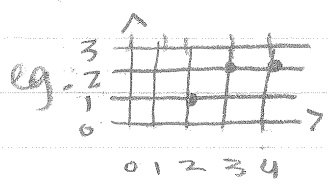


\* diff in symm. will be discussed by groups.

Q6 How many ways can you put carbon and oxygen atoms together in the formation



Q7 How many functions are there with domain  $\{1, 2, 3, 4\}$  and image in  $\{1, 2, 3\}$



Q8 Königsberg bridge problem: there are 2 islands in the river



and 7 bridges, as shown. Is it possible to make a journey through the town crossing each bridge exactly one time?