1. Find the probability that if I draw 5 cards from a standard deck of 52 cards, there will be no pairs. (You need not multiply it out, but you can if you like.)

2. The city of Glorpton is divided by the River Glorp, and has 5 bouroughs: Northton, Southford, Pig Island, Grub Isle, and Dink. There are nine bridges, as shown in the figure below.

Is it possible to devise a path through Glorpton that crosses each bridge exactly once? You need not start and finish at the same place.

If your answer is yes, show your solution. If no, give a reason why it cannot be done.