1.

a) the probablity of a server is up at a particular point :p= = 5760/5761

so the probablity of at least one is down is : 1- p^4, which is ap·proximately 0.00017358097552511165

b) the probability of all servers are down is (1-p)^1.

So the availability is 1-(1-p)^1=1-(1/5761)^4, which is ap·proximately 0.9999999999999991