

1 In the Land of Oz they never have two nice days in a row. If they have a nice day, they are just as likely to have snow as rain the next day. If they have snow (or rain), they have an even chance of having the same the next day. If there is a change from snow or rain, only half of the time is a change to a nice day.

- a) Find the probability that the third day is a nice day, knowing that it was sunny on the first day.
- b) More generally, find the probability that the n th day is a nice day, knowing that it was fine on the first day.
- c) Generally speaking, what is the probability to have a nice day in the land of Oz ?

② あるレンタカーの会社には、3つの営業所、東、西、南がある。客はどの営業所で車を借りることもできるし、どこかの営業所に戻してもよい。調査によると東営業所で借りた客の8割が東営業所に戻し、1割ずつが西と南営業所に戻すという。西営業所で借りた客はそれぞれ、3割、2割、5割の割合で、東、西、南営業所に戻す。また、南営業所で借りた客はそれぞれ、2割、6割、2割の割合で、東、西、南営業所に戻すという。このような状況が続くとした場合、レンタカーの配車を3つの営業所にどのような割合ですればよいか。