Question 1:

A naughty student is given a punishment to perform the given task and tell answer.

He needs your help as he is not very intelligent and don’t want to perform the task manually to get answer.

Two parallel lines are drawn on a floor. All chairs are arranged in a row in linear fashion along line 1.

He is given a task to toggle the chairs in 100 passes in each row starting with first chair every time.

You toggle each and every chair you visit in first pass (i.e. if the chair is in line 1, place it in line 2 and vice versa).

For the second pass, you visit every chair whose position is a multiple of 2.

For the Third pass, you visit every chair whose position is a multiple of 3.

And so on till the 100th pass

Suppose at the end A chair are in line 2 and B are chairs in line 1.

Find (A/10) \* f(B/10)

(where f(x) is inverse modulo of x with 1540)

(for Inverse modulo search on google If you don’t know)