

1. To reduce air pollution, private vehicles will be allowed to run on the streets on alternate days depending on their Vehicle Registration Number (eg. TN75AA7116). Given a vehicle number, write a function in python to extract the last four digits and apply the conditions in the given order to find the day order.
 - If the sum of the digits is even and if the number is prime, the vehicle will run on Mon, Wed, Fri and Sunday
 - Or if the product of digits is odd and the number is not prime, the vehicle will run on Tuesday, Thursday, Saturday and Sunday
 - Else the vehicle will run on all the days.

For eg:

Vehicle No : TN75AA5115 will run on Tuesday, Thursday, Saturday and Sunday

Vehicle No: TN75AA7116 will run on all days.

INPUT FORMAT:

Enter the Vehicle No: TN75AA5115

OUTPUT FORMAT:

TN75AA5115 will run on Tuesday, Thursday, Saturday and Sunday

2. It is challenge to place four queens in a 4 X 4 board such that they do not attack each other. Given a list of positions of four queens, write a program using functions to determine if the board positions are solution to the problem. If it is a solution then print 'NO ATTACK' and print 'ATTACK' otherwise.

Sample Input : [(0,1), (1,3), (2,0), (3,2)]

Output: NO ATTACK

Sample Input : [(0,1), (3,3), (2,0), (3,2)]

Output: ATTACK