Gregorian Calendar Problem Code: **FLOW015**

According to Gregorian Calendar, it was Monday on the date 01/01/2001. If any year is input, Write a program to display what is the day on the 1st January of this year.

Input
The first line contains an integer **T**, total number of testcases. Then follow **T** lines, each line contains an integer **year**.

Output
Display the day on the 1st January of that year in lowercase letter.

Constraints
- 1 ≤ **T** ≤ 1000
- 1900≤ **A,B,C** ≤2500

Example
Input

3

1994

1991

2014

Output

saturday

tuesday

wednesday