

# Gregorian calendar

[Wersja polska](#)

[English version](#)

Given a date, your task is to print the weekday.

Notice: In Julian calendar leap years were years which were divisible by 4. According to Gregorian calendar, leap years are years which are divisible by 4 excluding these which are divisible by 100 and are not divisible by 400.

## Input

The first line of the standard input contains one integer  $t$  ( $t < 101$ ) which is the number of test cases.

In each of the next  $t$  lines there is a date in format `yyyy:mm:dd` ( $1582 < \text{year} < 2010$ ).

## Output

For each test case print weekday (*Monday, Tuesday, Wednesday, Thursday, Friday, Saturday or Sunday*) for given date or *ERROR* if the date is incorrect.

## Example

**Input:**

2

1959:10:10

1962:02:29

**Output:**

Saturday

ERROR

**Special thanks to Rafał Spręga for the concept of this task.**