

Add Days

Ovi, our beloved Senior brother. He has to do a lot of **dateTime** calculation in his busy life. He always wants to know the date after x days. He wants to give less effort to do this calculation. Can you make it easy for him?

Input

The first line contains one integer t ($1 \leq t \leq 100$) – the number of queries. The first line of each query contains a date in **dd-mm-yyyy** format, which is a valid date. The next line contains x ($1 \leq x \leq 9999$) number of days required to add with given date.

Output

Find out the corresponding date after x days. See the format in example.

Example

Input

```
3
10-12-2020
12
29-02-2016
1010
03-12-2019
120
```

Output

```
22-12-2020
05-12-2018
01-04-2020
```