## Spending Money

Hasan has P taka. He goes a chocolate shop. The chocolate shop has only 'Kitkat' \& 'Dairy Milk' . The price of a single 'Dairy milk' is M taka and a single 'Kitkat' is N taka .

If any person wish to buy 'Dairy Milk' , he/she must have to be buy exatly 1 or 2 or 4 or 8 'Dairy Milks' at a time .

If any person wish to buy 'kitkat' , he/she must have to be buy exatly 7 or 14 or 28 'kitkats' at a time.

Hasan wants to spend as much money as he can. As, Hasan is weak in mathematics, he wants your help.

Now, you need to calcuate the minimum remaining money that Hasan will have after buying chocolates.

## Input

First line contains a positive integer T , which is the number of testcase.
In each testcase there will be three integers $P, M, N$.
$1<=T<=25$
$1<=P<=3^{*} 10^{\wedge} 10$
$30<=M, N<=10^{\wedge} 10$
The summation of all $P$ in all testcase will not exceed $1.2^{*} 10^{\wedge} 11$

## Output

For each testcase print the minimum money that Hasan will have after buying chocolates in one line.

See the sample input outout for better understanding.

## Example

## Input:

3
1503035
1674035
999999893131

## Output:

