UPSIDEDOWN

Different digits behave differently when turned upside down.

- Some digits remain the same: 0, 1, 8.
- Some digits transform into other digits: 6 becomes 9, and 9 becomes 6.
- All other digits cannot be recognized when turned upside down.

Given a number written on paper, determine what it reads when turned upside down. Note that flipping upside down also reverses the order of the digits. For example,

- 68910 → 01689
- 0010 → 0100
- 513 → unrecognizable (because digits 3 and 5 cannot be read when flipped)

Afterwards, discard any unrecognizable numbers, and add them up.

Input

The first line contains an integer N ($1 \leqslant N \leqslant 1\,000$). Each of the following N lines contains a string of digits (0–9), with length at most 100 digits.

Output

Output the result of turning all the N given numbers upside down, discarding any unrecognizable numbers, and adding them up. Do not output leading zeroes. For example, output 1789 and not 01789.

Example

Input	Output
3 68910 0010 513	1789