

# Equalities

Given a sequence of digits, insert the character = (equality sign) and two operators: + (plus) and - (minus) so as to form an equality of two arithmetic expressions.

Rules:

- Do not rearrange the given sequence of digits.
- Place in between every two consecutive digits in the sequence exactly one of the symbols: plus, minus, or equality sign.
- Use the equality sign exactly once.

If there is more than one solution, find all of them.

## Input

First, you are given  $T$ , the number of test cases ( $T \leq 10000$ ). The test cases follow, one test per line. Each of the test cases consists of a sequence of digits. There are at least 2 and no more than 10 digits in the sequence. Digits are separated by spaces.

## Output

For each of the test cases print all requested equalities, one per line, in arbitrary order.

## Example

**Input:**

```
3
2 3
1 0 1 0
3 2 1
```

**Output:**

```
1=0+1-0
1=0+1+0
1-0=1-0
1-0=1+0
1+0=1-0
1+0=1+0
1-0-1=0
1+0-1=0
3=2+1
3-2=1
```

## Scoring

There are five sets of tests, each set worth 2 points

Set 1 - two digits in every test case.

Set 2 - three digits in every test case.

Set 3 - up to five digits in every test case.

Set 4 - up to ten digits in every test case, output size does not exceed 300KB

Set 5 - up to ten digits in every test case, output size does not exceed 2.5MB