Adding words

Psychologists at Wassamatta University believe that humans are able to more easily deal with words than with numbers. So they have devised experiments to find out if this is true. In an interesting twist, one of their experiments deals with using words which represent numbers. Rather than adding numbers, they want to add words. You are a research programmer on the project, and your job is to write a program that demonstrates this ability.

Input

Input will be a sequence of commands, which can be a definition, a calculation, or a clear. A definition looks like this: “def foo 5”. When you see a definition, your program should remember that the word associates with the number, and the number with the word. A clear looks like this “clear”. When you see a clear, your program should forget all of its definitions. A calculation looks like this: “calc foo + bar - car =”.

When you see a word defined as a number, you must remember that definition, which may be used later in a calculation. Calculations will only involve additions and subtractions (but there may be many of them). No number will ever be associated with two different words.

Output

Your program will produce no output for definitions, but for calculations it will produce the value of the calculation. If there is not a word for the result, or some word in the calculation has not been defined, then the result of the calculation should be unknown. The word unknown will never be defined as a number.

Sample Input

```
def foo 3
calc foo + bar =
def bar 7
def programming 10
calc foo + bar =
def is 4
def fun 8
calc programming - is + fun =
def fun 1
calc programming - is + fun =
clear
```

Sample Output

```
foo + bar = unknown
foo + bar = programming
programming - is + fun = unknown
programming - is + fun = bar
```