

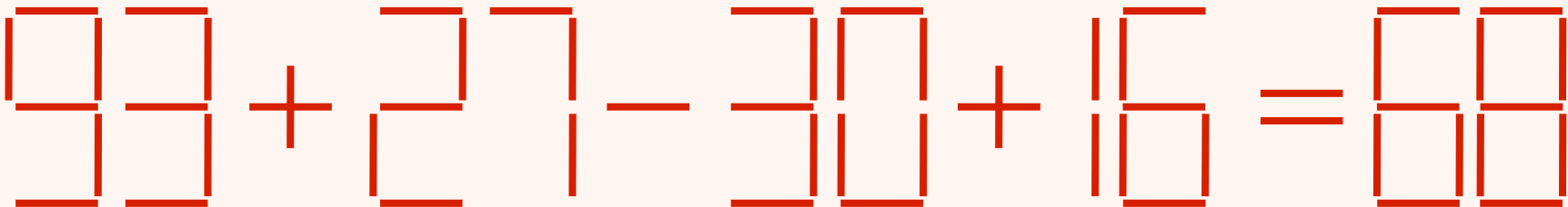
# Level 7

# Catalysts

If you worked through levels 1 – 6 this level provides no additional requirements.

We summarize all requirements if you started with level 7:

- wrong equations (numbers represented by red matches) have to be corrected by moving one match.
- the equations consist of arbitrary long terms that add or subtract numbers
- the operators and the equal sign (=) can be changed too
- the + and – signs can also be used as unary operators, such as +9 or -7.





correct transformation:

$$53 + 27 - 30 + 18 = 68$$

# representation of digits

- the digits 0 to 9 can be represented by segment lines (matches) as shown in the left table column
- by moving a segment line within a digit, you can, for example, transform digit 0 to either digit 6 or digit 9



# Catalysts

	move
0	6 9
1	
2	3
3	2 5
4	
5	3
6	0 9
7	
8	
9	0 6

## possible digit changes

- You can, for example, transform a 6 to a 5 by removing a match.

6 5

- By adding a match you can transform, for example, a 0 to 8.

0 8

## Catalysts

	remove	add
0		8
1		7
2		
3		9
4		
5		6 9
6	5	8
7	1	
8	0 6 9	
9	3 5	8

# input and output formats

# Catalysts

input: *<wrong equation as term=term>*

- term with add (+) and subtract (-) operators
- terms may contain numbers (not only digits)
- no blanks
- example:  $53+56-23-78+38-0=36+12-9-3$

output: *<correct equation as term=term>*

- term with add (+) and subtract (-) operators
- terms may contain numbers (not only digits)
- no blanks
- only one solution, also if several alternative solutions exist
- example:  $53+56-23-78+38-0=36+12-5+3$

Press Request Tests to get test cases in the format described above.

Feed your program with these inputs.

Feed CatCoder with the outputs of your program.

Press Submit Tests so that CatCoder checks your results.