Problem G
Plus or Times

Adrian is playing a game. When the game starts, Adrian will be given P points as his initial points. The game consists of N rounds, numbered from 1 to N. During round i, Adrian has two options. Each option can be one of the following types:

- `+` c ($-1000 \leq c \leq 1000$) which will add his current points by c, or
- `x` c ($-2 \leq c \leq 2$) which will multiply his current points by c.

Adrian wants to maximize his points at the end of the game. Help Adrian to determine the maximum points he can achieve after completing all N rounds!

Input

Input begins with two integers N P ($1 \leq N \leq 50$; $-1000 \leq P \leq 1000$) representing the number of rounds and the initial points during the game, respectively. Each of the next N lines contains the two options in each round separated by a space. Each option is given in the format T c ($T \in$ { `+`, `x` }; $-1000 \leq c \leq 1000$ if $T =$ `+`, or $-2 \leq c \leq 2$ if $T =$ `x`).

Output

Output an integer in a single line representing the maximum points Adrian can achieve at the end of the game.

Sample Input #1

```
3 123
+ 100 x 2
+ -100 x -2
+ 0 + 0
```

Sample Output #1

```
146
```

Explanation for the sample input/output #1

Adrian can choose the second option in round 1, first option in round 2, and any option in round 3.

Sample Input #2

```
3 123
+ 100 x 2
+ -100 x -2
x 0 x 0
```

Sample Output #2

```
0
```

Explanation for the sample input/output #2

Adrian will always achieve 0 points regardless of his decision in each round, because round 3 will multiply his points by 0.