

ECOO '14 R2 P1 - Scratch and Win

Time limit: 2.0s **Memory limit:** 64M

Play the "MOE Millions" scratch and win card and you could win up to \$1 000 000! Or you could win less than that! Or you might win nothing at all. There are 10 possible prizes: \$1, \$2, \$5, \$10, \$50, \$100, \$1000, \$10 000, \$500 000 and \$1 000 000.

To play, scratch off the squares on a 3×3 grid one at a time. If you find 3 matching prize amounts under the scratchy stuff, you win that amount. It's that simple! Each card will contain a maximum of one set of 3 matching symbols. Employees of the Ministry of Education and their families are not eligible for any prizes.

OK, you've got your card, and you've scratched off 8 of the squares as shown on the right. What fabulous prizes could you win when you scratch off that final square?

\$10	\$100	
\$10	\$1	\$50
\$50	\$1000	\$1

The input will contain 10 test cases. Each test case will consist of nine lines representing the nine squares on the card. The first line is for the top left box, the second is for the top middle box, then top right, then middle row left, and so on down to the bottom right corner. If a box has been scratched, the line for that box will contain the prize amount that is revealed. If not, the line will contain a question mark. The cards could be in any state of play, ranging from just starting out (no boxes scratched yet) to completely finished (all boxes scratched).

Your job is to output a list of all prizes the cardholder can or will win in order from lowest to highest, separated by spaces. Each card in the input should be represented by a single line in your output. If no prize is possible, output the exact string `No Prizes Possible`.

Note that the sample input below only contains one test case, but the real data files will contain 10 test cases, one after another, with no blank lines between. Your output should therefore consist of 10 lines.

Sample Input

```
$10
$100
?
$10
$1
$50
$50
$1000
$1
```

Sample Output

```
$1 $10 $50
```

Educational Computing Organization of Ontario - statements, test data and other materials can be found at ecoocs.org