Problem C
Circle or Square

Time limit: 1 second
Memory limit: 512 megabytes

Problem Description

MZ has drawn a shape on a 2D-plane. It can be either a circle or a square. He will tell you a number A and two points (x_1, y_1) and (x_2, y_2) which are on the boundary of the shape. He guarantees that the shape has the following two properties.

1. The difference between A and the area of the shape is at most 10^{-5}.
2. The distance between (x_1, y_1) and (x_2, y_2) is maximized. Any two points on the boundary of the shape has distance at most $\sqrt{|x_1 - x_2|^2 + |y_1 - y_2|^2}$.

Please write a program to determine what the shape is. In addition, you are also asked to compute the perimeter of the shape.

Input Format

The input is terminated by end-of-file, and there are at most 30 test cases. Each test case is a line containing five numbers A, x_1, y_1, x_2, y_2 separated by blanks. A is a positive real number. x_1, y_1, x_2, y_2 are integers in $[-100, 100]$.

Output Format

For each test case, your program should output one line as the following.

- If the shape is a circle, then output "`Circle` p" where p is the perimeter of the circle.
- If the shape is a square, then output "`Square` p" where p is the perimeter of the square.
- Otherwise, output "`MZ is a liar!`" to blame the problem setter.

You answer will be considered as incorrect if some number has both absolute error and relative error greater than 0.0000005.

Sample Input

```
1 1 0 0 1
3.1415926 0 0 0 2
2.5 0 0 0 2
```

Sample Output

```
Square 4
Circle 6.28318530718
MZ is a liar!
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