Area

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Timelimit: 1

Make a program that reads three floating point values: A, B and C. Then, calculate and show:

a) the area of the rectangled triangle that has base A and height C.

b) the area of the radius's circle C. (pi = 3.14159)

c) the area of the trapezium which has A and B by base, and C by height.

d) the area of the square that has side B.

e) the area of the rectangle that has sides A and B.

Input

The input file contains three double values with one digit after the decimal point.

Output

The output file must contain 5 lines of data. Each line corresponds to one of the areas described above, always with a corresponding message (in Portuguese) and one space between the two points and the value. The value calculated must be presented with 3 digits after the decimal point.

Input Samples	Output Samples
3.0 4.0 5.2	TRIANGULO: 7.800 CIRCULO: 84.949 TRAPEZIO: 18.200 QUADRADO: 16.000 RETANGULO: 12.000
12.7 10.4 15.2	TRIANGULO: 96.520 CIRCULO: 725.833 TRAPEZIO´: 175.560 QUADRADO: 108.160 RETANGULO: 132.080