

AreaAdapted by Neilor Tonin, URI  Brazil**Timelimit: 1**

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

- a) the area of the rectangled triangle that has base A and height C.
- b) the area of the circle of radius C. ($\pi = 3.14159$)
- c) the area of the trapezium which has base A and B 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 numbers with one digit after the decimal point.

Output

The output file contains 5 lines of data. Each line correspond to one of the areas described above, always with a corresponding message (in portuguese) and one space after the ":" and before the calculated number. All calculated number must be printed with 3 digits after the decimal point.

Sample Inputs	Sample Outputs
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