**Instructions**

A complex number is a number in the form a + b \* i where a and b are real and i satisfies i^2 = -1.

a is called the real part and b is called the imaginary part of z. The conjugate of the number a + b \* i is the number a - b \* i. The absolute value of a complex number z = a + b \* i is a real number |z| = sqrt(a^2 + b^2). The square of the absolute value |z|^2 is the result of multiplication of z by its complex conjugate.

The sum/difference of two complex numbers involves adding/subtracting their real and imaginary parts separately: (a + i \* b) + (c + i \* d) = (a + c) + (b + d) \* i, (a + i \* b) - (c + i \* d) = (a - c) + (b - d) \* i.

Multiplication result is by definition (a + i \* b) \* (c + i \* d) = (a \* c - b \* d) + (b \* c + a \* d) \* i.

The reciprocal of a non-zero complex number is 1 / (a + i \* b) = a/(a^2 + b^2) - b/(a^2 + b^2) \* i.

Dividing a complex number a + i \* b by another c + i \* d gives: (a + i \* b) / (c + i \* d) = (a \* c + b \* d)/(c^2 + d^2) + (b \* c - a \* d)/(c^2 + d^2) \* i.

Raising e to a complex exponent can be expressed as e^(a + i \* b) = e^a \* e^(i \* b), the last term of which is given by Euler's formula e^(i \* b) = cos(b) + i \* sin(b).

Implement the following operations:

* addition, subtraction, multiplication and division of two complex numbers,
* conjugate, absolute value, exponent of a given complex number.

Assume the programming language you are using does not have an implementation of complex numbers.