MATLAB: University of California, Davis

Computer LAB for Linear Algebra   Dr. Daddel

MATH 22AL   LAB # 10

5   Real and Imaginary part of a Complex Number

A complex number c can be written as $c = a + bi$ where a and b are real numbers.
a is called the real part of c and b is called the imaginary part of c.
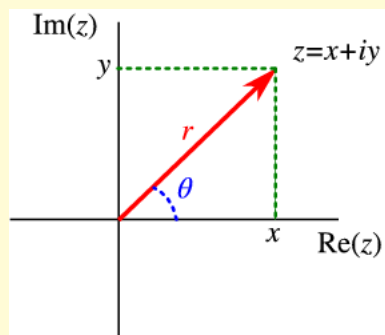
5.0.1   Complex numbers as vectors Geometric Representation

A complex number $c = a + ib$ corresponds to a point in the xy-plane. If we call the $x-$axis as **Real axis** and the $y-$ axis as imaginary axis the new plane will be called **complex plane.**

Every complex number $c = a + ib$ corresponds to a point (a, b) in the Complex plane.
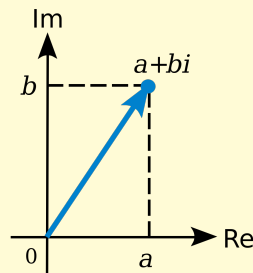
Also every complex number $c = a + ib$ can be viewed as a vector.

If $\mathbf{v} = (\mathbf{a}, \mathbf{b})$ represents complex number $c = a + ib$, then length of this vector is called **absolute value** or **modulus** of the complex number $c = a + ib$.

type	c1 = 3+ 4i
type	c2 = -5 +7i
type	r1 = abs(c1)
type	a = angle(c1)
type	z= r1.*exp(i*a)