Classes

* A class encapsulates data and associated code
* A class directly represents a concept in a program
* If you can thin of it as a separate entity, it is plausible that could be a class or an object of a class
* Examples
  + Vector, matrix,input stream, string, fft, valve controller …
* A class is a user defined type that specifies how objects of its type can be created ,used, and destroyed.

Complex numbers

toString

Constructors

* The constructor is a special kind of member that initializes an instance of its class
  + The constructor must initialize fields, allocate memory, update static variables
  + the keyword (this) references the current object, and is very useful for specifying fields
* Not a method
* No return type
* A constructor can have nay number of parameters
* Default constructor

Destructors

* The destructor tears down or deallocates the object, freeing any resources
* In a non-memory managed languages such as c++, this is a critical issue
* Poorly written c++ destrcutors may result in memory leaks
* Java memory is actively managed, and freed when ti can no longer be accessed
* This is called garbage collection, about which we’ll have much more to say
* But the result in java does nt need or support destructrors

Another special metho. Main

* A class is executable if it has a main method
* The signature must exactly match public static void main(String[] args).
* Args.length tells us how many args you have.

Epsilon = 0.000001

Static class members

* A static mthod or field exists as part of the class, and its memory location nis shared among all instances.