

## Variable, Method, and Constructors

variables and methods are not the same

variables can be declared with (as) primitive types  
(int double char boolean short long float byte)

variables can be declared with (as) reference types  
(everything else–String Character Integer Scanner Random Apple Snake PortalPair ...)

variables can be instance variables (non-static fields)

variables can be class variables (static fields)

variables can be parameters (declared in the parameter list of a method or constructor)

variables can be local (declared within a method)

variables can be temporary (declared within a construct like an if statement or loop code)

variables can be CONSTANT (final fields)

methods can be instance methods (non-static)

methods can be class methods (static)

methods can be final (final methods can not be inherited)

methods can be void (have void as their return type)

methods can be non-void (have some other return type and return a value of that type)

methods have parameters lists (variables do not)

constructors can have parameter lists

constructors do not have return types

constructors can not be declared as static or final (because they are implicitly static and final)