



MC	Name	Section Day(s)	Section start time
	Component		

Method Chains and Digesting the Java API

Module Overview:

We can write powerful programs by using code that others have written and shared. It's collected in a set of packages called the **Java Standard Library**. We access the features of the standard library through its interface -- **the Application Programming Interface (The Java API)**

Learning objectives

As you review each objective, pause to fill in any gaps in understanding you have

Mastery?	Objective
	Be The Compiler and calculate variable values through method calls.
	Use a method on a library class to accomplish a useful task in a program, such as the <code>String.substring(int startingIndex)</code> method
	Digest and diagram the Java library's Application Programming Interface documentation so you can explain what a method does and how one might use it in a program

Hamburger Contents: Check 'em off!

Assemble all of these items and slide them into this document folded *hamburger style*. Place on the right pocket of your folder, please.

Got it?	Description
	Printed version of your quiz classes
	Notes, sketches, & other project-related documents
	This hamburger, thoughtfully completed

Challenge 1: Translating English into Method Diagrams

Write a method diagram (ONLY Input Types and output Types) for a method that meets these specifications:

This non-static (instance) method computes the total number of a product that can be purchased given a budget amount and is named `calcMaxNumberToPurchase`. It accepts an `int` type parameter that is stored in a local variable called `num` and a `double` that is stored in a local variable called `budget`. It returns an `int` that represents the number that can be purchased.

Challenge 2: Interpreting API documentation

Study the following API entry for the `indexOf` method on the `java.lang.String` class. Then interpret this entry in English. Use the above sample as a guide. Use the back or extra paper if needed.

```

specinea substring.

int      indexOf(String str, int fromIndex)
         Returns the index within this string of the first occurrence of the
         specified substring, starting at the specified index.

String   intern()

```