**Batting Average - FAQ**

**Why do I get a NullPointerException when I run my program?**

When you create an array of reference types (objects), all elements in the array default to null. Example: Player[] temp = new Player[10]. Attempting to call a method on temp[0] would result in a NullPointerException as its value is null (not a reference to an actual object).

You need to first set the reference (instantiate an object) at a particular index before calling methods on it:

temp[0] = new Player("Charlie", 8);

System.out.println(temp[0].getBattingAverage());

Additionally, **arrays are objects**,despite their different-looking instantiation syntax (clip = new double[5] vs. m = new Monomial(), note the use of the new keyword in each). An array instance variable that is declared only will store a null value. Initialize the variable to store a reference to a new array object:

Player[] players; //instance variable, null until initialized

public Team() {

players = new Player[9]; //initialize the object (allocate memory)

}

Also, make sure you haven't RE-declared instance variables in the constructor. Example:

public class Team {

Player[] players; //DECLARES instance variable

public Team() {

~~Player[]~~ players = new Player[9]); //don't RE-declare, just initialize!

**Why can't I access the** length **of a Team object?**

Team is a class that *has* an array of Players; it isn't an array itself! Example:

Team team = new Team(); //a Team object is NOT an array!

System.out.println(team.length); //won't compile!

You can, however, access the players array *in* a Team object (using dot notation). The players array DOES have a length property.

**Scanner can't find my input file! Is Java broken?**

Probably not, you may have spelled the file name wrong or you may have it in the wrong location. Check the "Getting input from a text file" powerpoint for more info. Also, make sure you are scanning a File object, not a String literal of the file name. Example:

Scanner in = new Scanner("players.txt"); //no! scanning a string literal

File file = new File("players.txt"); //construct a file object

Scanner in = new Scanner(file); //pass a file object to Scanner's constructor