 

**Advanced Placement Computer Science**

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**Unit 1: Comp Sys - Numeric String Rep Num Sys**

**Lesson: Review Vars, Loops, Arrays, FILLED OUT**

***Last Updated:*** *9/11/2017*

Lesson: Parameter Passing Mechanisms

*Last Updated: 100/11001/1100*

1. **Computer Variables:**
As a review: describe what computer variables do during the running of a program
variables store the state of the program

What types are built into java?
int, short, byte, long, float, double, boolean, char

How are phrases represented in java?
String

Declare a String to hold a name. Assign into it the company who runs java.

String coName = “Oracle”;
2. **Loops** are useful for repeating commands a certain number of times
	1. **Looping a fixed number of times;**Write a loop to print the numbers from 1-1000 on separate lines, after every 12th number, print \*\*\* on a line by themselves
	for(int i=1; i<=1000; i++){
	 System.out.println(i);
	 //Check for div by 12
	 if(i % 12 == 0)
	 System.out.println(“\*\*\*”);
	}
	2. **Looping an unknown number of times**
	We also can loop until something occurs. Write a loop to accept words until someone types in “stop”. Add each word into a sentence. Then print the sentence at the end with a \* between each word.
	**Example:
	Type in a word, type stop to quit:** *Hello***Type in a word, type stop to quit:** *I***Type in a word, type stop to quit:** *am***Type in a word, type stop to quit:** *here***Type in a word, type stop to quit:** *stop*Hello\*I\*am\*here\*

String inWord=””, phrase = “”;
Scanner input = new Scanner(System.in);
while(true){ //infinite loop…
 System.out.println(“Please enter in a word, type \”stop\” to quit”);

 inWord = input.nextLine(); //includes spaces
 if(inWord.equals(“stop”)){
 break;
 }
 phrase = phrase + inWord + “\*”;
}
System.out.println(phrase);

1. **Arrays:** Arrays allow for the storage of \_\_multiple variables under a single name.

Examples,
int[]schedule = new int[24];
//Assign the first element the value 8
schedule[22]=schedule[23]=0;
for(int i =0; i<6;i++)
 schedule[i]=0; //I am asleep
for(i =6; i<22;i++)
 schedule[i]=1; //I am awake

What are methods?
methods are sub programs within programs
they should have a specific task

methods can have parameters or inputs

methods have a local scope

methods can have 1 return value