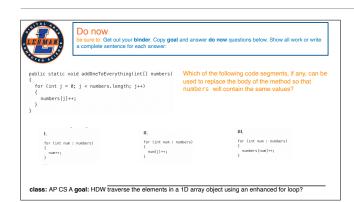
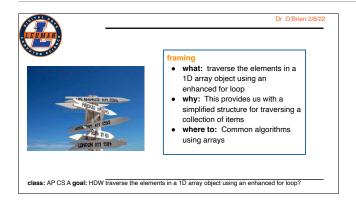


## Fall 2021 AP CS A Lesson 2.2

Dr. O'Brien Herbert H. Lehman High School 8 February 2022 VOCAB: nested loop



1.1. only. The num will return an element of the array, not an index, so II and III won't work. use code tracing table to illustrate how enhanced for loop works.





Vocab (review)

be sure to: Keep your **notebook** open. These definitions should be in your Glossary. If not Copy each definition, in your <u>Java Glossary</u>.

Enhanced for loop A simplified, but less flexible way to loop through a collection of items. Often called a a for-each loop.

## A regular for loop

int[] scores = {00, 92, 91, 68, 88};
for(int i = 0; i < scores.length; i++
{
 System.out.println(scores[i]);
}</pre>

## An enhanced for loop:

for(int score : scores)
{
 System.out.println(score)

class: AP CS A goal: HDW traverse the elements in a 1D array object using an enhanced for loop?

Inside the loop, the enhanced for loop variable is assigned a copy from the array without using the array index. Making changes to the enhanced for loop variable does not change the original value in the array.

+What are some reasons it could be useful to use an enhanced for loop? Enhanced for loops offer a simplified structure and are especially good when using nested loops. They tend to be easier to write

+What are some reasons to use a standard for loop? A for loop uses a counter variable which is sometimes needed in your loop. Since enhanced for loops only make a copy with no reference to the index, they are not optimal if you need to update values in the array



Coding to learn

be sure to: Log in to Workstation. Work on CodeHS exercises below. Make sure to write out a plan before you start coding!

## A regular for loop

- · Exercise 6.3.6: Print Odds
- Excercise 6.3.7: Largest Value
- Excercise 6.3.8: Classroom Array
   Excercise 6.3.9: Array average

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Complete any exercises you don't finish here as homework! An enhanced for loop:

for(int score : scores)
{
System.out.println(score

int[] scores = {80, 92, 91, 68, 88};

for(int i = 0; i < scores.length; i+
{
 System.out.println(scores[i]);</pre>

class: AP CS A goal: HDW traverse the elements in a 1D array object using an enhanced for loop?

SOLUTION CODE (REQUIRES CODEHS):

Exercise 6.3.6: Print Odds
Excercise 6.3.7: Largest Value
Excercise 6.3.8: Classroom Array
Excercise 6.3.9: Array average

Go through student solutions at the end of class.



Dr .O'Brien 2/8/22

Reflection: Thinking about thinking
be sure to: Answer each question below with a complete sentence.

- What are the advantages of using an enhanced loop?
- 2. When would a standard for loop be a better choice?



class: AP CS A goal: HDW traverse the elements in a 1D array object using an enhanced for loop?

+What are the advantages of using an enhanced loop?

Enhanced for loops offer a simplified structure and are especially good when using nested loops.

+When would a standard for loop be a better choice?

When the counter variable is needed or if you are looking at updating values in your array, you need to use a for loop.