

Name: _____

Unit 2: Practice AP Questions

1. Consider the following code segment:

```
myList ← ["red", "yellow", "green", "blue"]  
X ← <MISSING CODE>  
DISPLAY(X)
```

What should <MISSING CODE> be replaced with so that "yellow" is displayed after executing the code?

- A. myList[2]
 - B. myList["yellow"]
 - C. "yellow"[myList]
 - D. [2]myList
2. Consider the following code segment:

```
numberList ← [2, 5, 8, 1]  
X ← numberList[1] + numberList[3]  
DISPLAY(X)
```

What will be displayed after executing the code segment?

- A. 10
 - B. 4
 - C. 3
 - D. 2
3. Consider the following code segment:

```
words ← ["hello", "bye", "no", "yes"]
```

Which of the following is a valid index for the list, words?

- A. 5
- B. -1
- C. "bye"
- D. 4

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4. Consider the following code segment:

```
oceans ← ["pacific", "atlantic", "indian"]  
APPEND oceans, "arctic"  
APPEND oceans, "southern"  
DISPLAY oceans 4
```

What is displayed after executing the code segment?

- A. "oceans"
- B. "arctic"
- C. "southern"
- D. "indian"

5. A programmer is writing a sports program that handles football teams and their players. Which of the following is the most appropriate data type to represent a collection of different football player's names?

- A. String
- B. Boolean
- C. Numeric
- D. List

6. Consider the following code segment:

```
firstList ← ["apple", "banana", "orange"]  
secondList ← ["grape", "lemon"]  
thirdList ← []  
thirdList ← firstList  
firstList ← secondList  
secondList ← thirdList
```

What are the contents of `secondList` after the code segment is executed?

- A. []
- B. ["apple", "banana", "orange"]
- C. ["grape", "lemon"]
- D. ["apple", "banana", "orange", "grape", "lemon"]

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7. Consider the following code segment:

```
numbersList ← [8, 6, 2, 1]
APPEND ( numbersList , 4 )
X ← numbersList[1]
Y ← numbersList[5]
Z ← X MOD Y
DISPLAY (Z)
```

What displays after the code segment is executed?

- A. 4
 - B. 0
 - C. 3
 - D. 1
8. Which of the following is a benefit of using a list as a data abstraction in a program?
- A. Lists often allow their size to be easily updated to hold as many data values as needed.
 - B. Lists convert all elements to strings so that they can be inspected character-by-character.
 - C. Lists prevent duplicate data values from appearing in the list.
 - D. Lists are used to store all input data so that there is a running record of all user input.
9. A programmer is creating a program that will add two user inputs together and display the sum to the user. Which of the following would be an appropriate algorithm?
- A. Ask the user for inputs. Display the output.
 - B. Ask the user for inputs. Store the inputs into variables. Calculate the sum of the two variables. Display the sum.
 - C. Add the numbers together. Display the numbers.
 - D. Add numbers together. Store user input into variables. Display the numbers.
10. A student is creating a program that will calculate the average for her friends' grades. Which of the following would be an appropriate algorithm?
- A. Create a list for grades, ask the user for input, store the user input into the list, calculate the average of the list, return to the user
 - B. Ask the user for input, store the user input into the list, calculate the average of the list, create the list for grades
 - C. Create a list for grades, return the output to the user, ask the user for input, calculate the average of the list,
 - D. Ask the user for input, return to the user, create the list for grades, calculate the average for the list