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NCYTE CENTER

DATA STRUCTURES LESSON

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DATA STRUCTURES

CODE SEGMENTS AND OUTPUT ACTIVITY

Read each code segment and write the output.

CODE SEGMENT 1

```
names ← ["Jim", "Sally", "Sandy"]

INSERT(names, 1, "Bob")

DISPLAY(names)
```

Code Segment 1 Output (write answer below)

CODE SEGMENT 2

```
names ← ["Jim", "Sally", "Sandy"]
APPEND(names, "Alice")
DISPLAY(names)
```

Code Segment 2 Output (write answer below)

CODE SEGMENT 3

```
names ← ["Jim", "Sally", "Sandy"]
REMOVE(names, 2)
DISPLAY(names)
```

Code Segment 3 Output (write answer below)

CODE SEGMENT 4

```
names ← ["Jim", "Sally", "Sandy"]
newNames ← ["Tim", "Sid", "Ty"]
APPEND(names, newNames[1])
DISPLAY(names)
```

Code Segment 4 Output (write answer below)

CODE SEGMENT 5

```
names ← ["Jim", "Sally", "Sandy"]
newNames ← ["Tim", "Sid", "Ty"]
REMOVE(names, 3)
INSERT(names, 2, newNames[3])
DISPLAY(names)
```

Code Segment 5 Output (write answer below)

CODE SEGMENT 6

```
names ← ["Jim", "Sally", "Sandy", "Jerry", "Doug", "Sam"]

count ← 0

REPEAT 3 TIMES {

 count ←  count + 2

 DISPLAY names[count]
```

Code Segment 6 Output (write answer below)

CODE SEGMENT 7

```
names ← ["Jim", "Sally", "Sandy"]
newNames ← ["Tim", "Sid", "Ty"]
count ← 3
REPEAT 3 TIMES {
 APPEND(names, newNames[count])
 count ← count - 1
}
DISPLAY(names)
```

Code Segment 7 Output (write answer below)

CODE SEGMENT 8

```
8.      names ← [“Jim”, “Sally”, “Sandy”, “Jerry”, “Doug”, “Sam”]
count ←  LENGTH(names)
REPEAT count TIMES {
 REMOVE(names, count)
}
DISPLAY(names)
```

Code Segment 8 Output (write answer below)

CODE SEGMENT 9

What does the following code segment accomplish?

```
names ← [ ]
REPEAT 4 TIMES {
        DISPLAY(“Enter a name.”)
        APPEND(names, INPUT() )
}
DISPLAY(names)
```

Code Segment 9 Output (write answer below)

WHAT TO SUBMIT

Students should turn in their paper for grading and/or verification of completion.

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