Problem 1: Variable Swapping with `temp`

Given the following code, what will be printed?

```python
x = 45
y = 73

# Swapping the values of x and y
temp = x
x = y
y = temp

print(x)
print(y)
```

What will be printed after running the following code?

```python
a = 12
b = 27
c = 35

# Using temp to adjust values
temp = a + b
a = b
b = c
c = temp

print(a)
print(b)
print(c)
```

Problem 3: Reassigning Values Using a Temporary Variable

Consider the following code:

```python
x = 20
y = 40
z = 60

# Adjusting values using temp
temp = x
x = z + y
y = z
z = temp

print(x)
print(y)
print(z)
```

Problem 4: Logic Using `temp` in Conditionals

Given the following code, what values will be printed?

```python
x = 15
y = 10
temp = x

if x > y:
    x = y
    y = temp

print(x)
print(y)
```

Problem 5: Complex Reassignments with `temp`

What will be the values of `x`, `y`, and `z` after the following code is executed?

```python
x = 100
y = 50
z = 25

# Swapping and adjusting using temp
temp = x
x = y + z
y = z
z = temp - z

print(x)
print(y)
print(z)
```

After the following code is executed, what will be printed for `x`, `y`, and `z`?

python

```python
x = 5
y = 15
z = 25

# Manipulate values using temporary variables
temp1 = x + y
temp2 = z - x
x = temp2
y = temp1
z = temp1 - temp2

print(x, y, z)
```

The code segment below is intended to swap the values of the variables `first` and `second` using a temporary variable, `temp`.

```
temp ← first
first ← second
<MISSING CODE>
```

Which of the following can be used to replace `<MISSING CODE>` so that the code segment works as intended?

(A) `second ← first`

(B) `second ← temp`

(C) `temp ← first`

(D) `temp ← second`

A code segment will be used to swap the values of the variables *a* and *b* using the temporary variable *temp*.

Which of the following code segments correctly swaps the values of *a* and *b*?

(A)

```
a ← b
temp ← a
b ← temp
```

(B)

```
temp ← a
a ← b
b ← temp
```

(C)

```
temp ← a
a ← temp
a ← b
```

(D)

```
temp ← a
b ← temp
a ← b
```

Consider the following code segment, which uses the variables r, s, and t.

```
r ← 1
s ← 2
t ← 3
r ← s
s ← t
DISPLAY (r)
DISPLAY (s)
```

What is displayed as a result of running the code segment?

(A) 1 1

(B) 1 2

(C) 2 3

(D) 3 2

Consider the following program, which uses the variables `start`, `end`, and `current`.

```
start ← 1
end ← 20
current ← 3
start ← current
current ← current + 1
DISPLAY (start)
DISPLAY (current)
```

What is displayed as a result of executing the program?

(A) 1 3

(B) 3 3

(C) 3 4

(D) 4 4