

Answers to Assignment: Working with Python Lists

Coding Challenge Answer

```
# Step 1: Create a shopping_list
shopping_list = ['Milk', 'Eggs', 'Bread', 'Butter']

# Step 2: Add 'Cheese' to the end of the list
shopping_list.append('Cheese')

# Step 3: Insert 'Tomatoes' at the second position
shopping_list.insert(1, 'Tomatoes')

# Step 4: Remove 'Butter' from the list
shopping_list.remove('Butter')

# Step 5: Print the updated list
print("Updated Shopping List:", shopping_list)

# Step 6: Use slicing to print the first three items
print("First Three Items:", shopping_list[:3])
```

Output:

```
Updated Shopping List: ['Milk', 'Tomatoes', 'Eggs', 'Bread', 'Cheese']
First Three Items: ['Milk', 'Tomatoes', 'Eggs']
```

Multiple Choice Question Answers

Question 1: What is the output of the following code?

```
numbers = [1, 2, 3, 4, 5]
print(numbers[1:4])
```

Answer: b) `[2, 3, 4]`

Explanation: Slicing `numbers[1:4]` starts at index 1 (inclusive) and ends at index 4 (exclusive). So the result includes `[2, 3, 4]`.

Question 2: Which method is used to add an item to the end of a list in Python?

Answer: b) `append()`

Explanation: The `append()` method adds a single item to the end of the list.

Question 3: What does the following code do?

```
fruits = ['apple', 'banana', 'cherry']  
fruits.pop(1)
```

Answer: c) Removes 'banana' from the list.

Explanation: The `pop(1)` method removes the item at index 1, which is 'banana', and returns it.