

CSE 212 – Programming with Data Structures
W01 Prove – Response Document

Name:	Trevor Gibb
Date:	Sept, 2022
Teacher:	Zach Alvey


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Question 1: For the rotate right problem, provide a description of how you solved the problem.

Using a for loop counting from 0 to the length of data, I appended each value of data to a new list called result. I determined the index of data by finding the remainder of the difference of counter and amount divided by the length of data. In code it looks like this:

```
for counter in range(0, len(data)):
{
    i_data = (counter - amount) % len(data)
    result.append(data[i_data])
}
```

Question 2: For the rotate right problem, draw a picture of how you solved the problem.

data [1, 2, 3, 4, 5, 6, 7, 8, 9], amount = 1  result [9, 1, 2, 3, 4, 5, 6, 7, 8]

The result list is shown with indices 0 through 9 written above each element: 0 above 9, 1 above 1, 2 above 2, 3 above 3, 4 above 4, 5 above 5, 6 above 6, 7 above 7, and 8 above 8.

Remember: You need to submit the following code files in addition to this document:

- 01-prove_multiples_of.py
- 01-prove_rotate_list_right.py

this is because the index of data starts at $(\text{counter} - \text{amount}) \% 9$, which in this example is $(0 - 1) \% 9 = -1$. In python, negative indices are accepted.