

Name:

Date:

**Exercise 1:**

- Paste screenshots of your console showing the net charge of “DIAK” at pH 7 and pH3.
- Predict the charge of “DIAK” at pH 12.

**Exercise 2:**

- Peptides that eluted in Fraction 1:
- Peptides that eluted in Fraction 2:
- Peptides that eluted in Fraction 3:
- Did any peptides retain on the column at pH 3? Why or why not?

**Exercise 3a:**

- Paste a screenshot of your modified code that prints out the charge of each peptide at pH 7.

**Exercise 3b:**

- Write out answers to the three questions:
  - What does the code do? What are the inputs and what are the outputs?
  - What do we want the code to do? What inputs do we have, and what do we expect as outputs?
  - What parts of the existing code already do what we want, and what parts need to change?
- Paste a screenshot of your modified `m_over_z()` function for MALDI.
- What are the expected MALDI  $m/z$  values for each peptide from Exercise 2?

**Exercise 4a-c:**

- If required, send emails with your code to your instructor.