**Name:**

BINF 730 – Biological Sequence Analysis

Take-Home Mid-Term Exam

October 12, 2020

Due October 19, 2020 by midnight

1. What are the similarities and differences between the following three pairwise sequence analysis algorithms: Needleman-Wunch, Waterman-Smith-Beyer, and Smith-Waterman?
2. Provide three pairs of sequences that would give different alignments with the three above algorithms (different at least 2/3). One pair should give the most meaningful/sensible alignment using Needleman-Wunsch. One pair should make the most send using Waterman-Smith-Beyer. And one pair should be best aligned by Smith-Waterman