Problem Set 1 - General

Question B

Alternating subsequence, similar to Baby Bites, was also quite an easy one. The key thing that I had to get here was that it could just be done by an easy greedy approach. Since we wanted to get the maximum (by size), it makes the question a lot easier. If we wanted JUST the max sum, it would be a little bit more difficult as we would need to know whether to skip over choosing a negative, or sacrifice some by taking the negative in order to choose a better one in the next positive.

However, since we want the maximum by size, we know that we will always take one element from each contiguous block of positives/negatives. SO, all we need to do is iterate through from left to right, if the current element is the same sign as the previous, and it's greater than the current max, we add it to the sum. Everytime the sign flips, we set the max back to negative infinity, and add one to the length of the longest subsequence.

Not too bad of a question :)