CSci 550 Worksheet
Translating English into Predicates

Let $a[0..N)$, $b[0..N)$, and $c[0..N)$ be integer arrays where $N > 0$. Translate the following English statements into predicates:

1. All elements of b are zero.

2. Some elements of b are zero.

3. No element of b is zero.

4. Exactly one element of b is zero.

5. The sum of tht b's elements is at least -17 and at most 294.

6. The minimum element of b occurs at most four times.

7. Arrays a and b are equal.

8. Array c is the element-by-element sum of a and b.

9. Each element i of c is the sum of the first i elements of b.

10. If an element of b is zero then the corresponding element of c is nonzero.

11. The first elements of a, b, and c are equal or they sum to 0.

12. Each element of c contains the minumum of the absolute values of the corresponding elements of a and b. (Do not use the absolute value operator.)