1. Consider the following (incorrect) flow function for **parity analysis**:
    $$f_P[\ x := y * z\ ] (\sigma) = \sigma\ [x\ |\text{->} e]$$
    Specify an input state $c_i = E, n$ for the unsound flow function and show using that input state that the flow function is not locally sound. Part of specifying the input state is indicating which instruction n is referring to.

2. Prove the $\sigma(y) = o \land \sigma(z) = o$ case of the monotonicity case for $f_P[x := y * z](\sigma)$ as defined in the recitation notes.

3. Prove the other half of the local soundness case for $f_P[x := y * z](\sigma)$ as defined in the recitation notes. The recitation notes get the proof started and prove the k is even case. You should finish the proof by proving the k is odd case.