

# Worksheet #37: Creating a Circuit for Parallel Prefix Sums

Name: \_\_\_\_\_

Netid: \_\_\_\_\_

Assume that you have a full adder cell,  $\oplus$ , that can be used as a building block for circuits (no need to worry about carry's). Create a circuit that generates the prefix sums for 1, ... 6, by adding at most 5 more cells to the sketch shown below, while ensuring that the CPL is at most 3 cells long. Assume that you can duplicate any value (fan-out) to whatever degree you like without any penalty.

