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 $1, \ldots, 6$, 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.