

CDA 3103 Worksheet-6: Decoders

Decoders are usually constructed with a control input called the Enable (**EN**). When **EN** is 0, all decoder outputs are 0; when **EN** is 1, the Decoder functions normally. The Enable input is also useful in allowing smaller Decoders to be combined to form larger ones.

- 1) Sketch the gate-level implementation of a 2x4 Decoder with Enable input and complete its truth table:

EN	A	B	D0	D1	D2	D3

- 2) Show how to connect two 2x4 Decoders (with Enables) to form a 3x8 Decoder

