

Reading: PP-chp 3:

- 3.3 (decoder, mux, FA, PLA)
- 3.4 (R-S latch, register)
- 3.5 (memory)
- 3.6 (sequential machines, FSM)
- 3.7 (LC-3 datapath)

§ Problems, PP-chp 3:

- § 3.12 3-Dec, show minterm exp.
- § 3.13 5-dec, show num output lines.
- § 3.14 16X1 mux, how many select lines?
- § 3.19 explain mux ckt, s-r latch
- § 3.20 truth table => trans. Ckt  $\neg(\neg a.b)$
- § 3.22 4X1 mux, from 2x1 MUXs
- § 3.24a 2x1 mux, identify input (select)
- § 3.29 d-latch transparency
- § 3.30a 2-in-3-out comparator truth table.
- § 3.30c, 4-bit EQUAL from 1-bit 2X3 comparators
- § 3.31 #word X word\_size = mem. Size
- § 3.32, addressability vs. address
- § 3.33a row X col addressing: find 4-th word
- § 3.33b #selects for 60 words?
- § 3.33c #words max for #select=3?
- § 3.43a fsm truth table
- § 3.43b state diagram for (a)