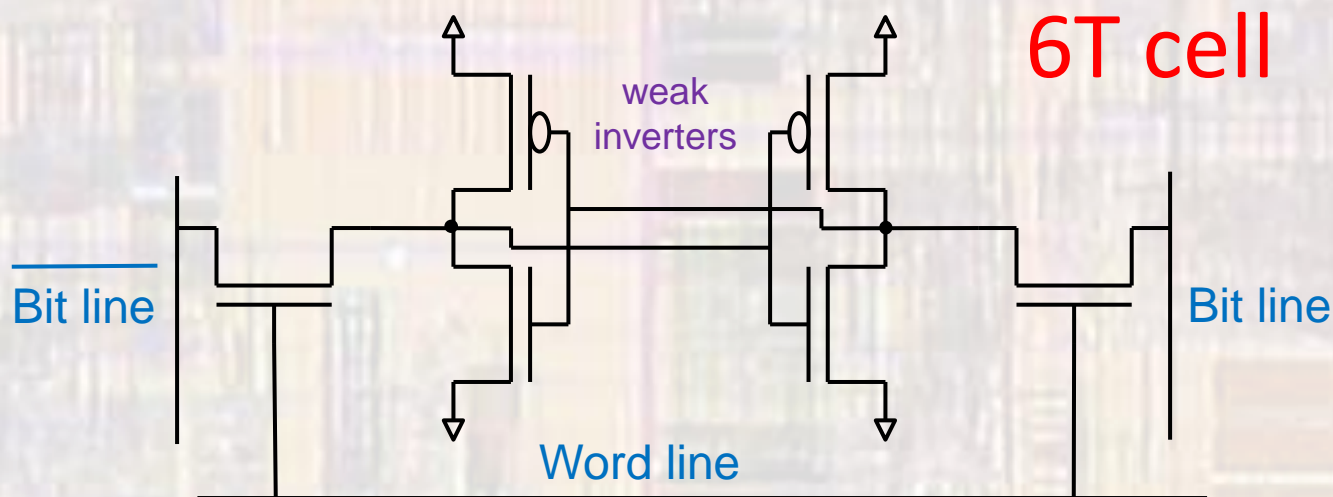


SRAM

Last updated 3/26/25

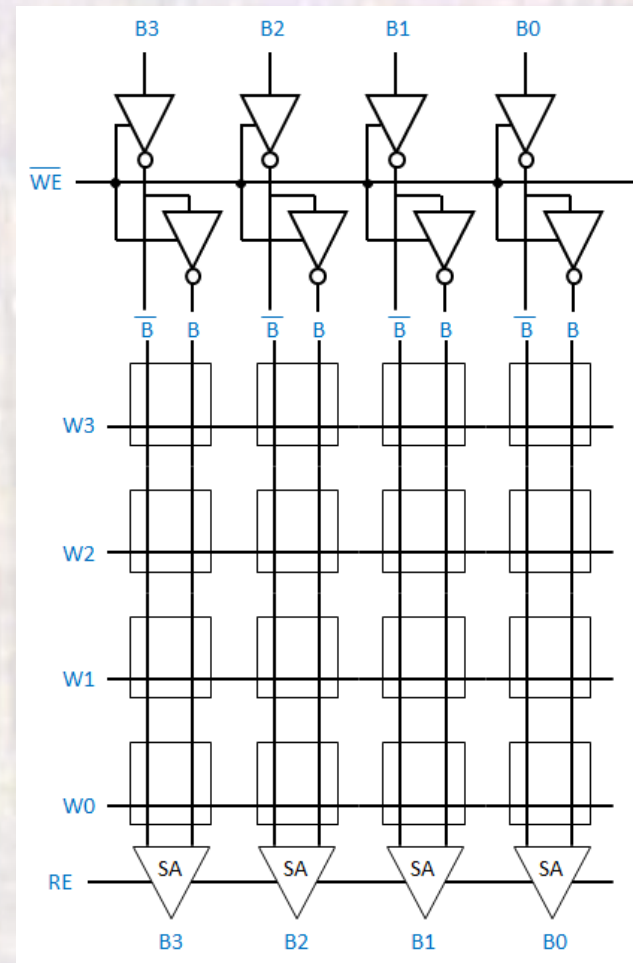
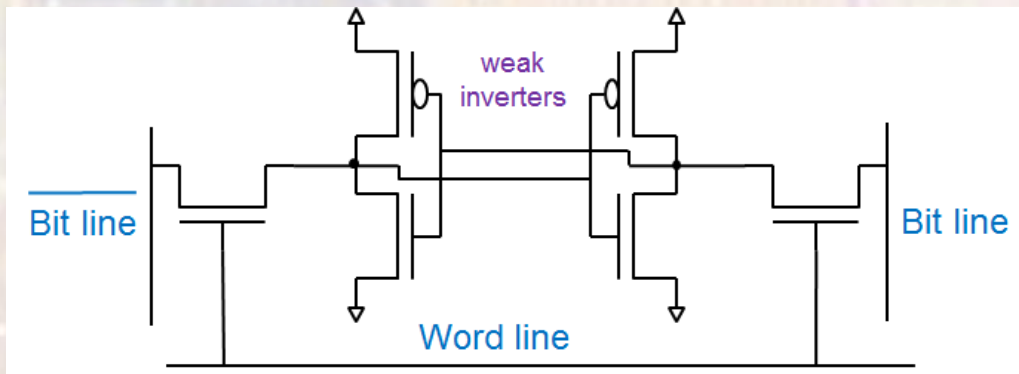
Memory - SRAM

- SRAM – Static Random Access Memory
 - Memory cell (1 bit) is based on a feedback circuit
 - Bit value is retained as long as power is maintained
 - Fastest read/write (R/W)
 - Highest power
 - Lowest density
 - Used in caches and small data memories



Memory - SRAM

- SRAM – Static Random Access Memory
 - Write
 - All Word lines low
 - Read Enable (RE) disabled (low)
 - Place B0, B1, B2, B3 on inputs
 - Pull write enable bar (\overline{WE}) low
 - Strobe the desired word line high
 - Bit lines override the bit cell inverters and store the new value in the cell



Memory - SRAM

- SRAM – Static Random Access Memory
 - Read
 - All Word lines low
 - Write enable bar (\overline{WE}) high
 - inverters tristated
 - Read Enable (RE) high
 - Strobe the desired word line high
 - Bit cell inverters drive the bit lines and sense amplifiers read the value

