Final Main Memory (RAM) Design
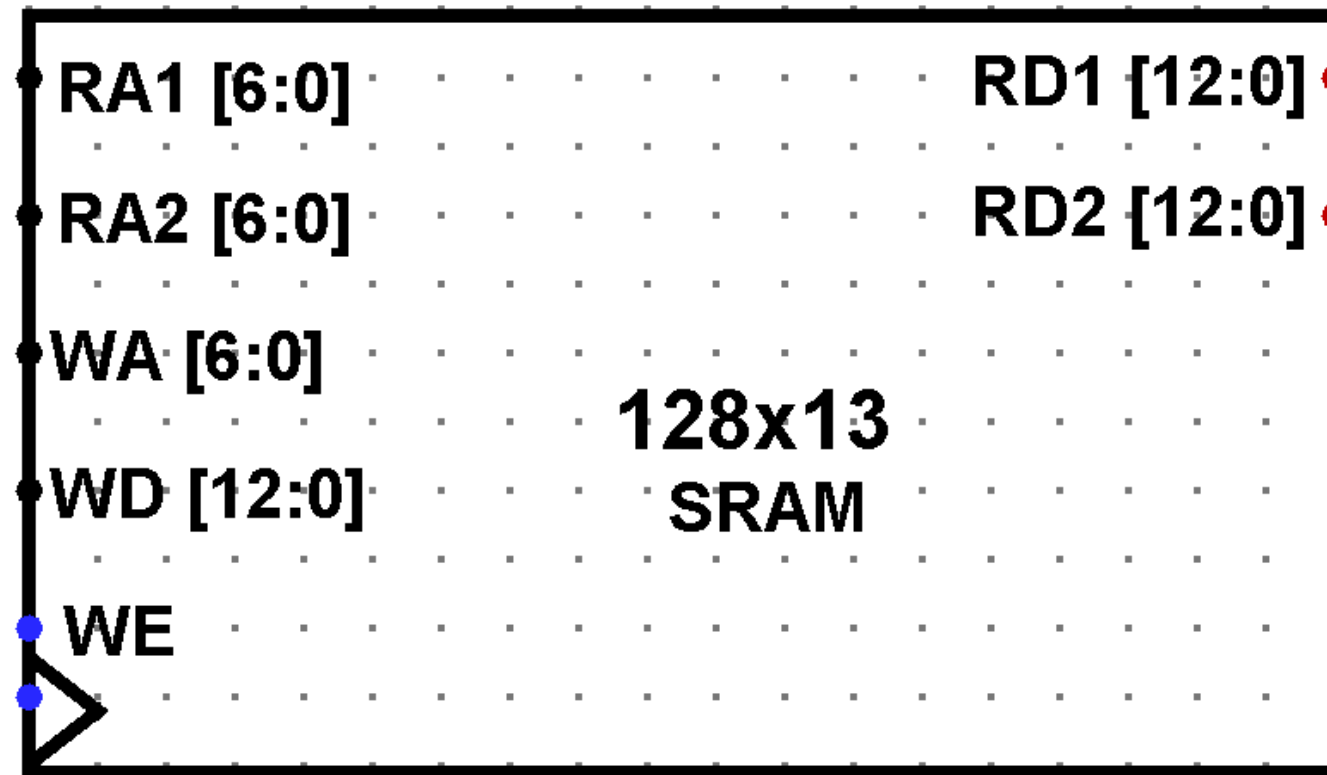
Nahin Ul Sadad
Lecturer
CSE, RUET

Main Memory (SRAM)

RAM chip is shown below:

Here,
RA1 = Read Address 1
RA1 = Read Address 2
RD1 = Read Data 1
RD2 = Read Data 2
WA = Write Address
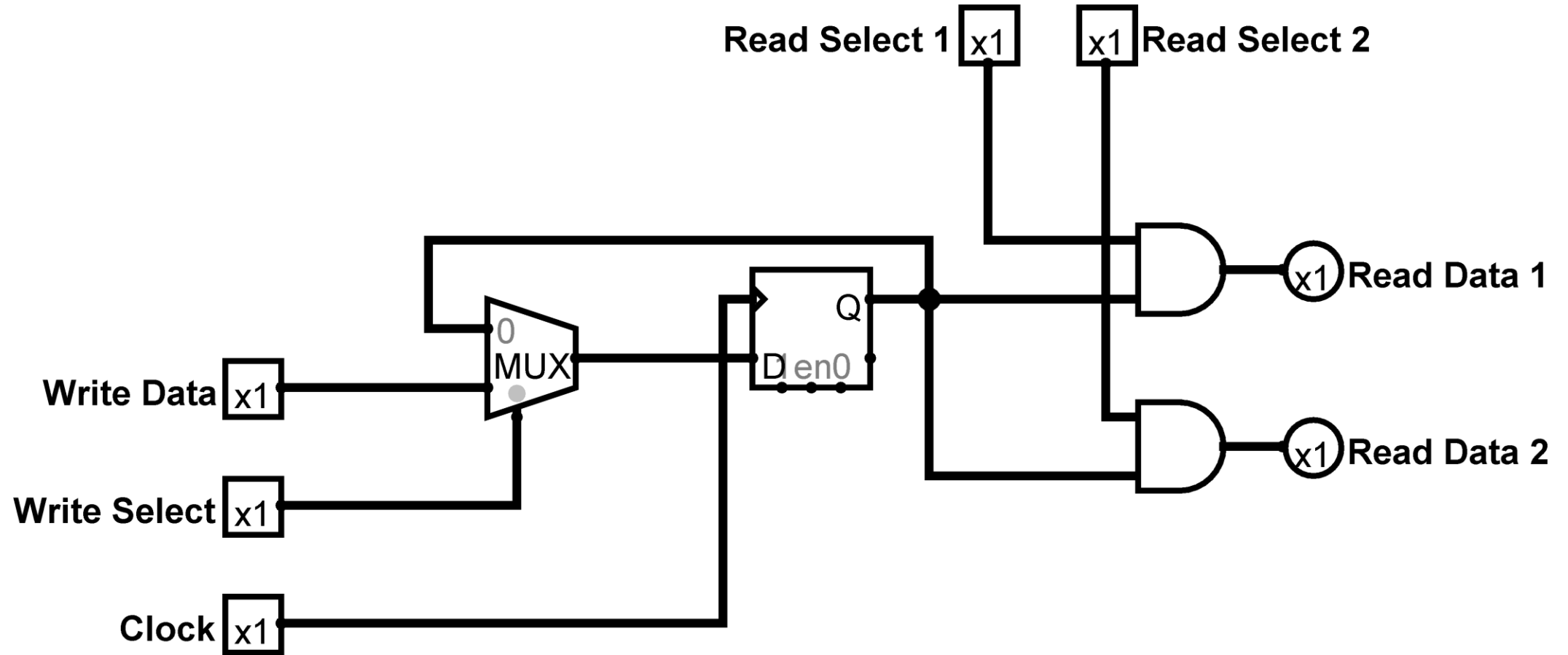**WD =** Write Data
WE = Write Enable

Figure: RAM chip (128x13)
Size of RAM = 128. It can store 128 instructions/data.
Word Size of RAM = 13. It can store 13bit instruction/data in every address.
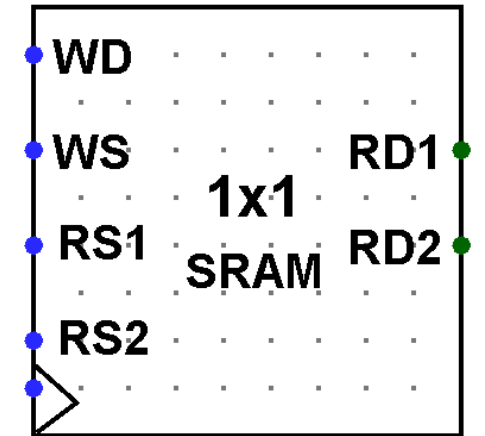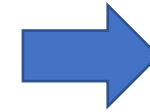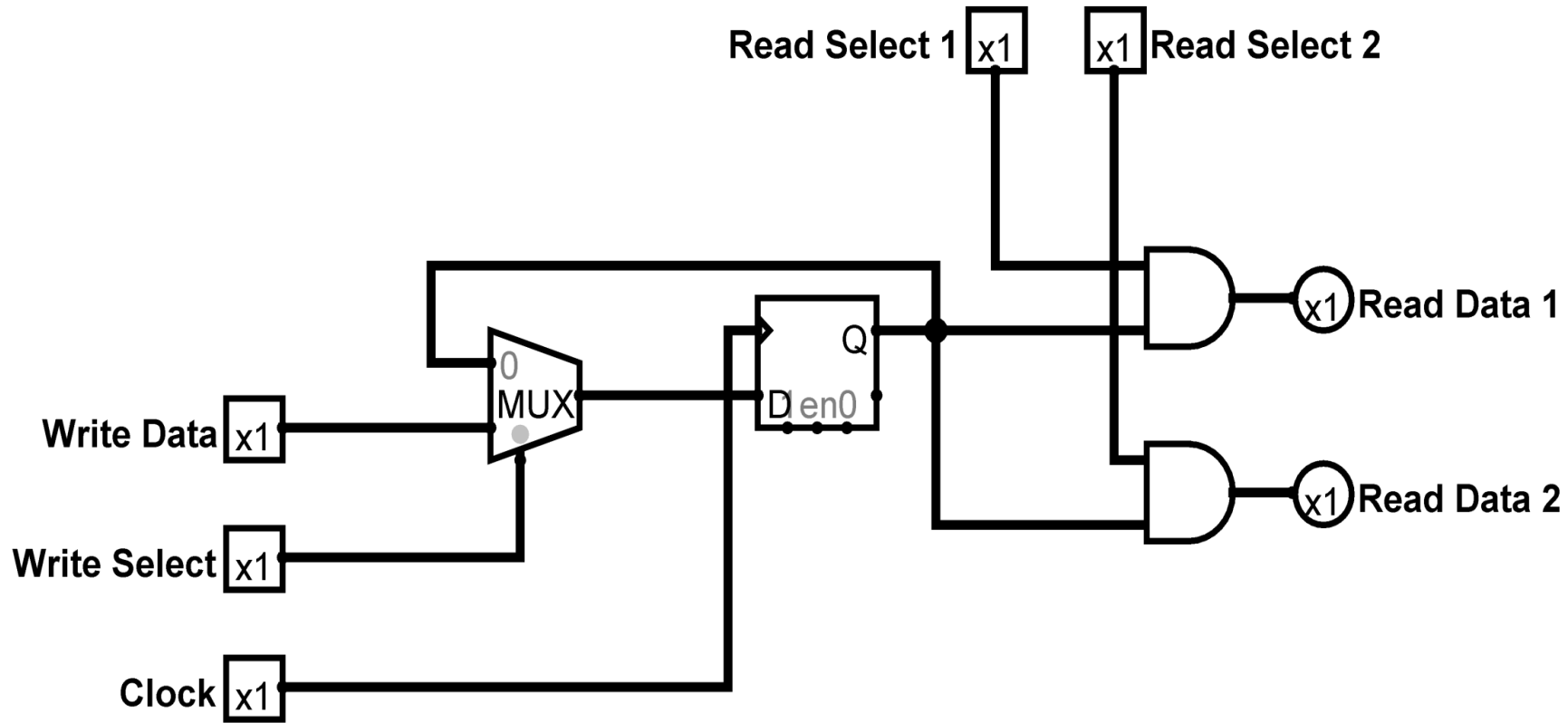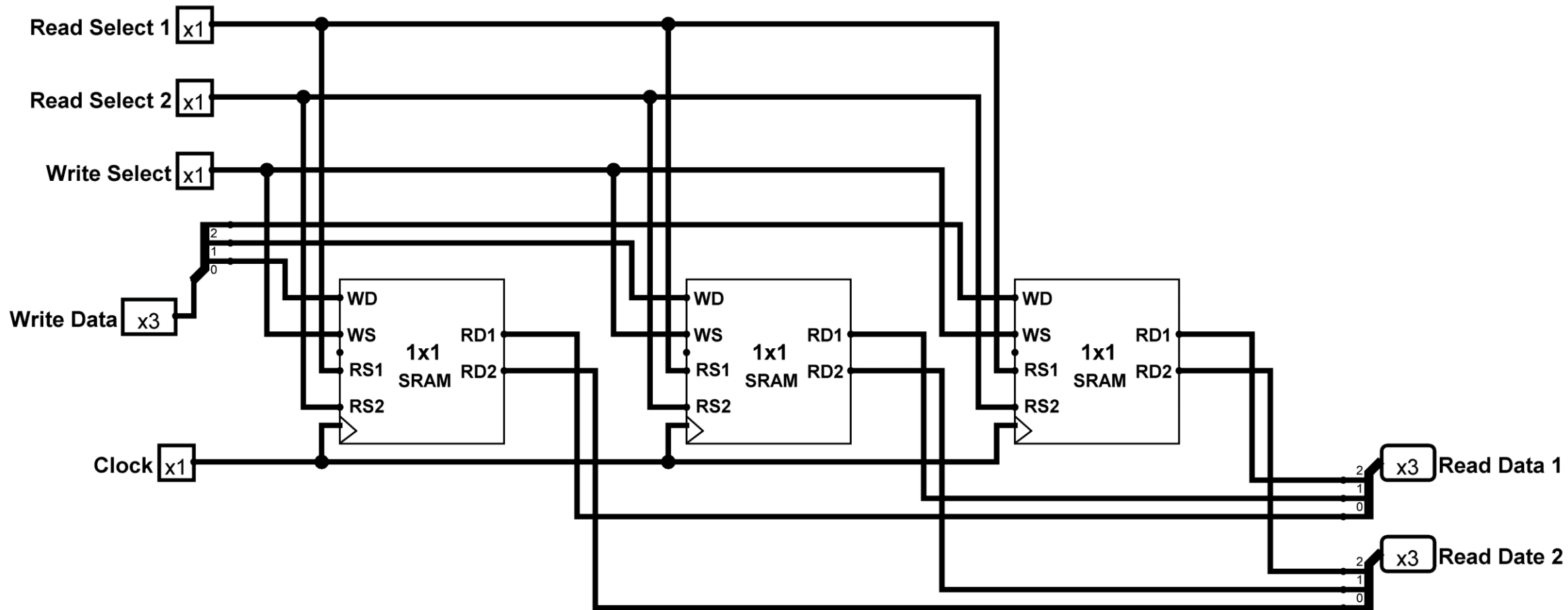
1x1 Static RAM (SRAM) Cell

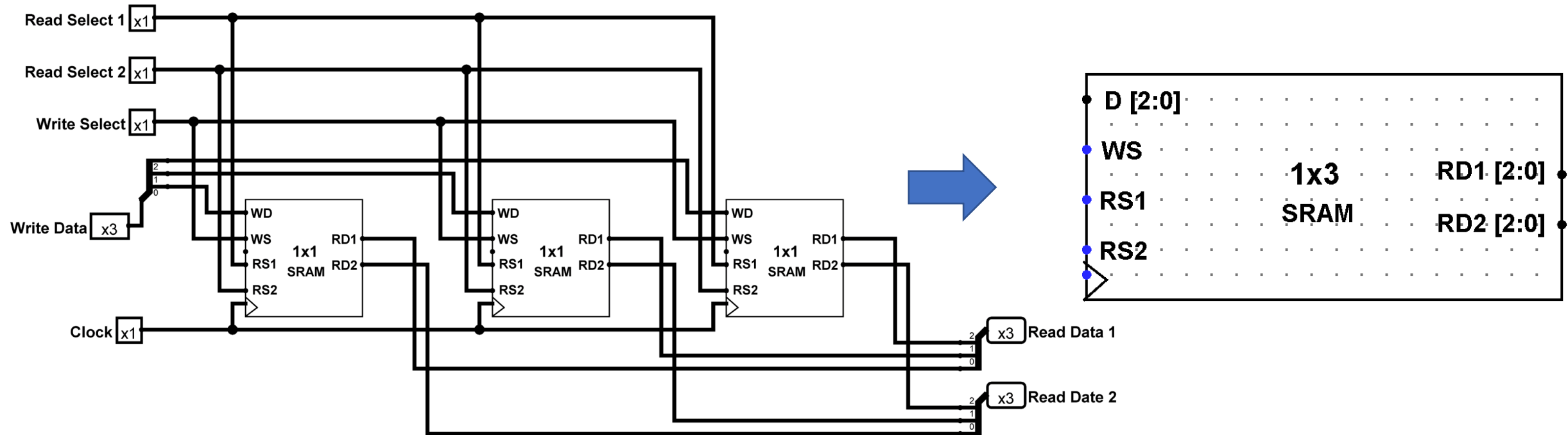# 1x1 SRAM

1x1 SRAM

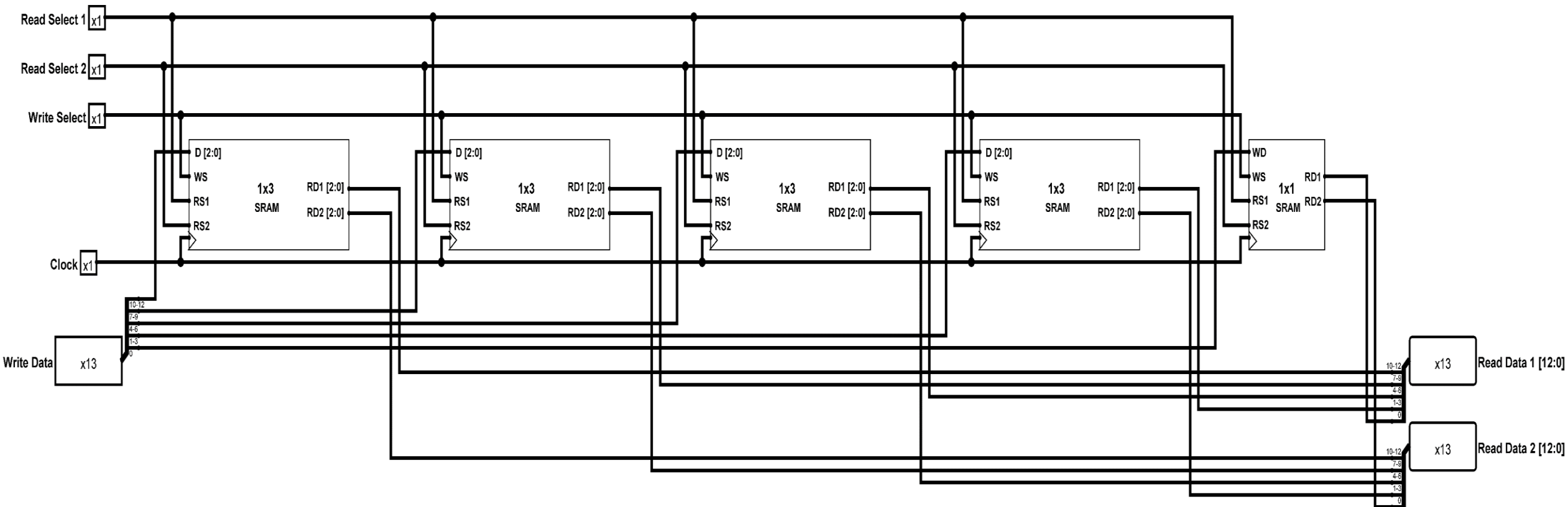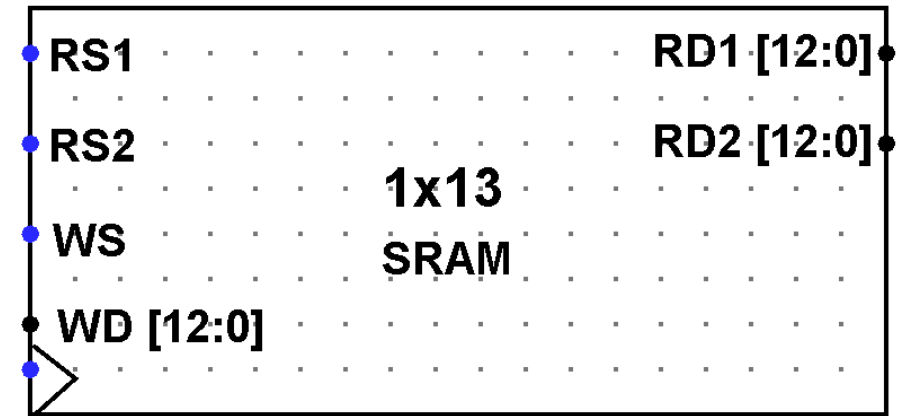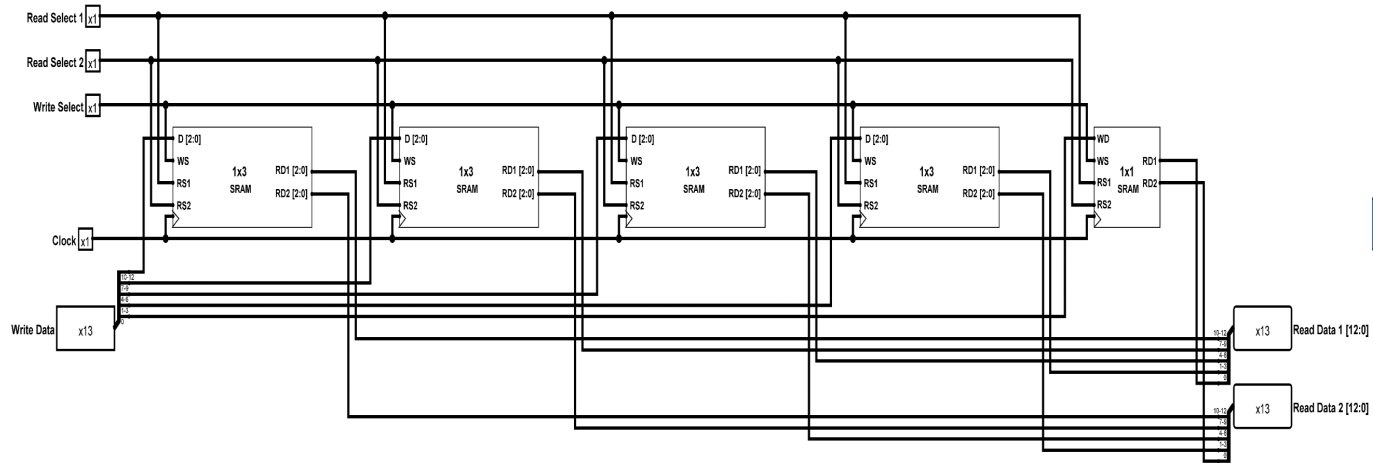**Figure:** 1x1 SRAM Chip

1x3 Static RAM (SRAM) Cell

1x3 SRAM
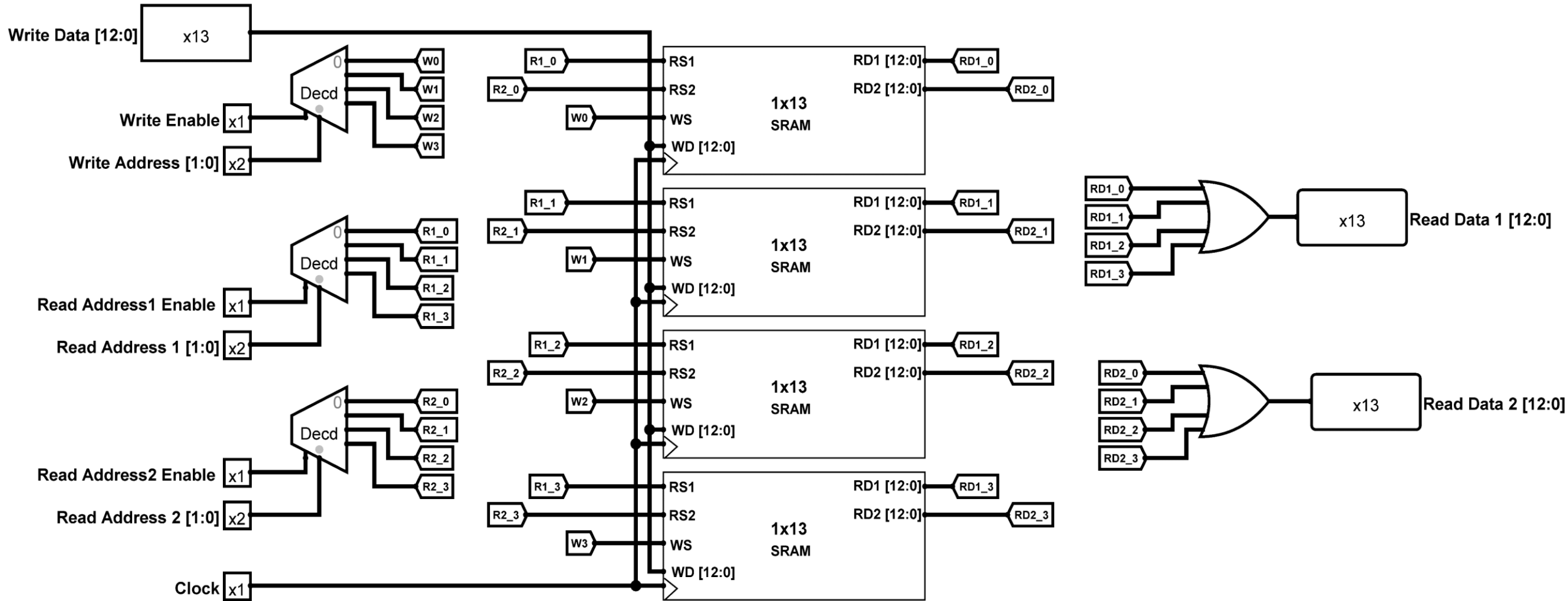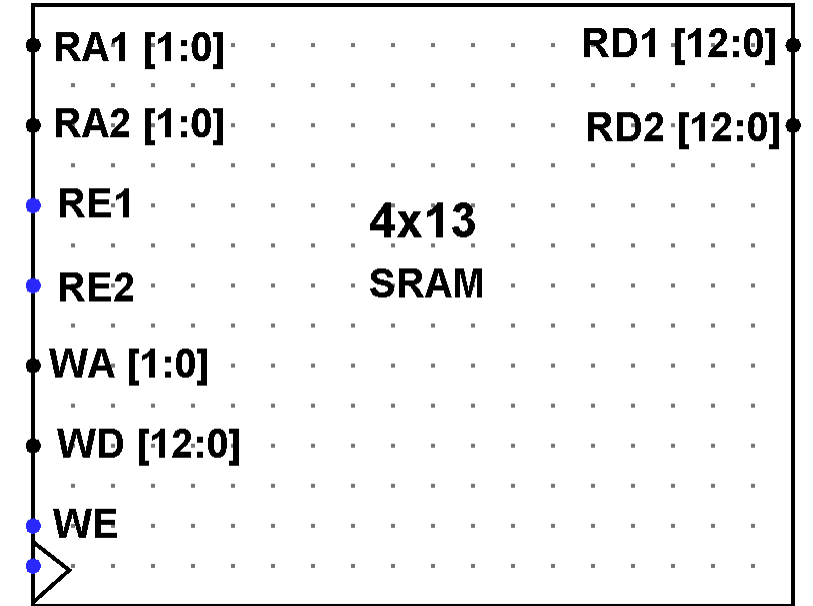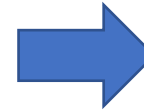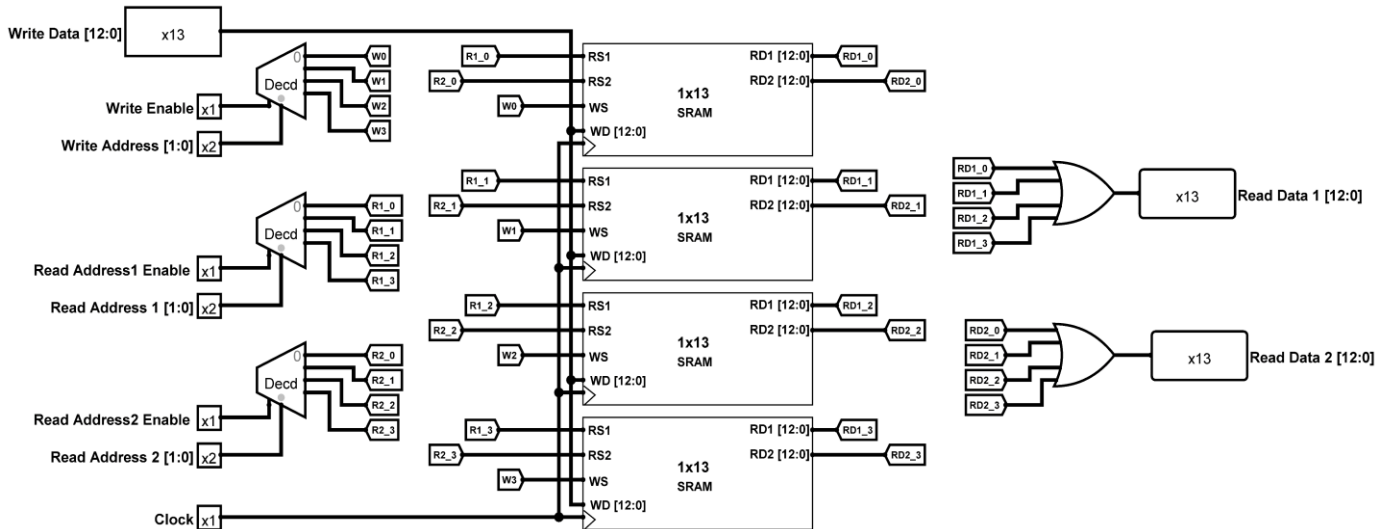
1x3 SRAM

1x13 Static RAM (SRAM) Cell

1x13 SRAM

1x13 SRAM

4x13 Static RAM (SRAM) Cell

4x13 SRAM

4x13 SRAM
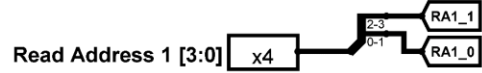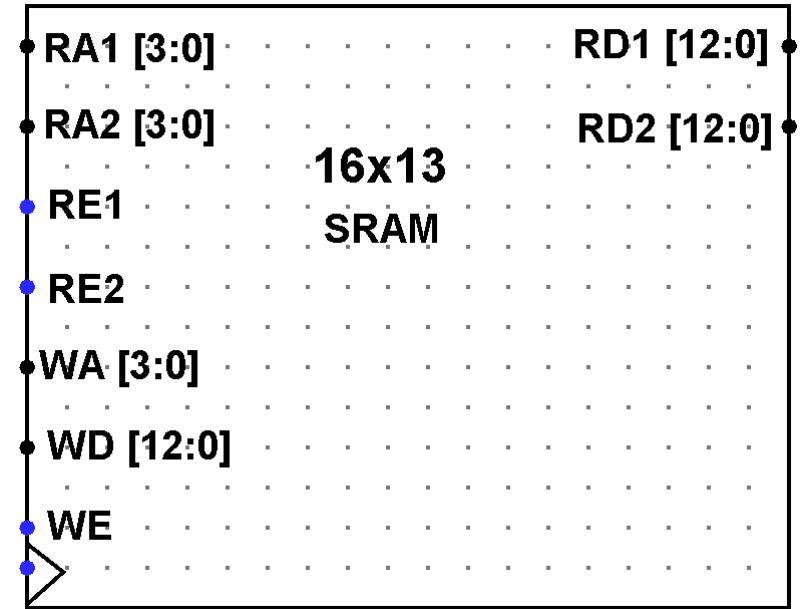
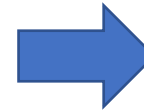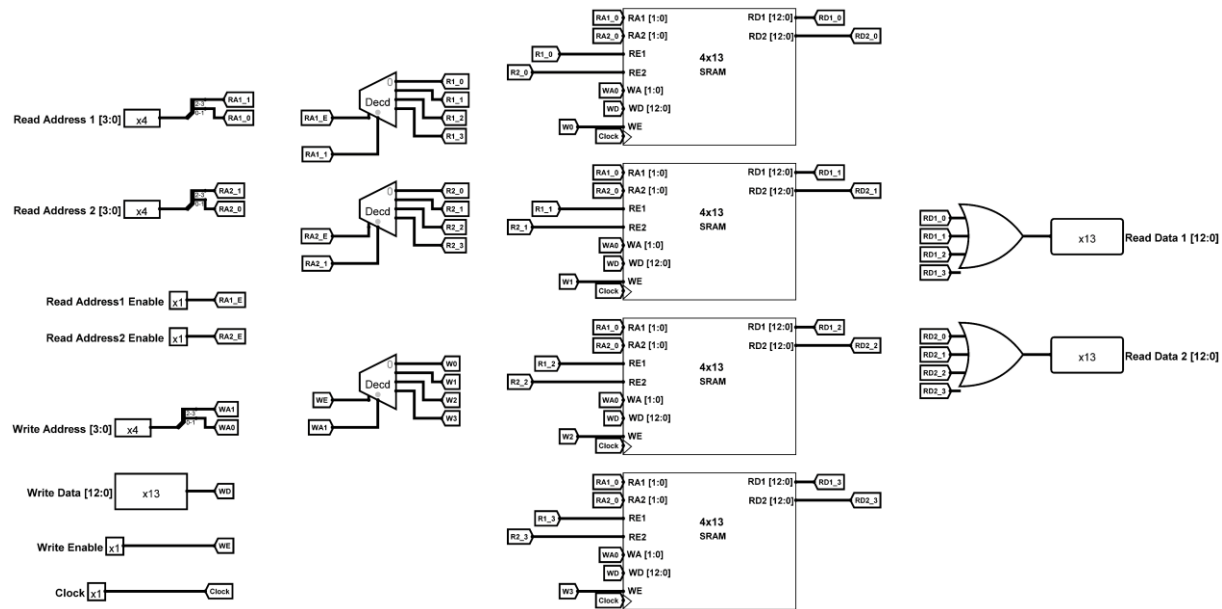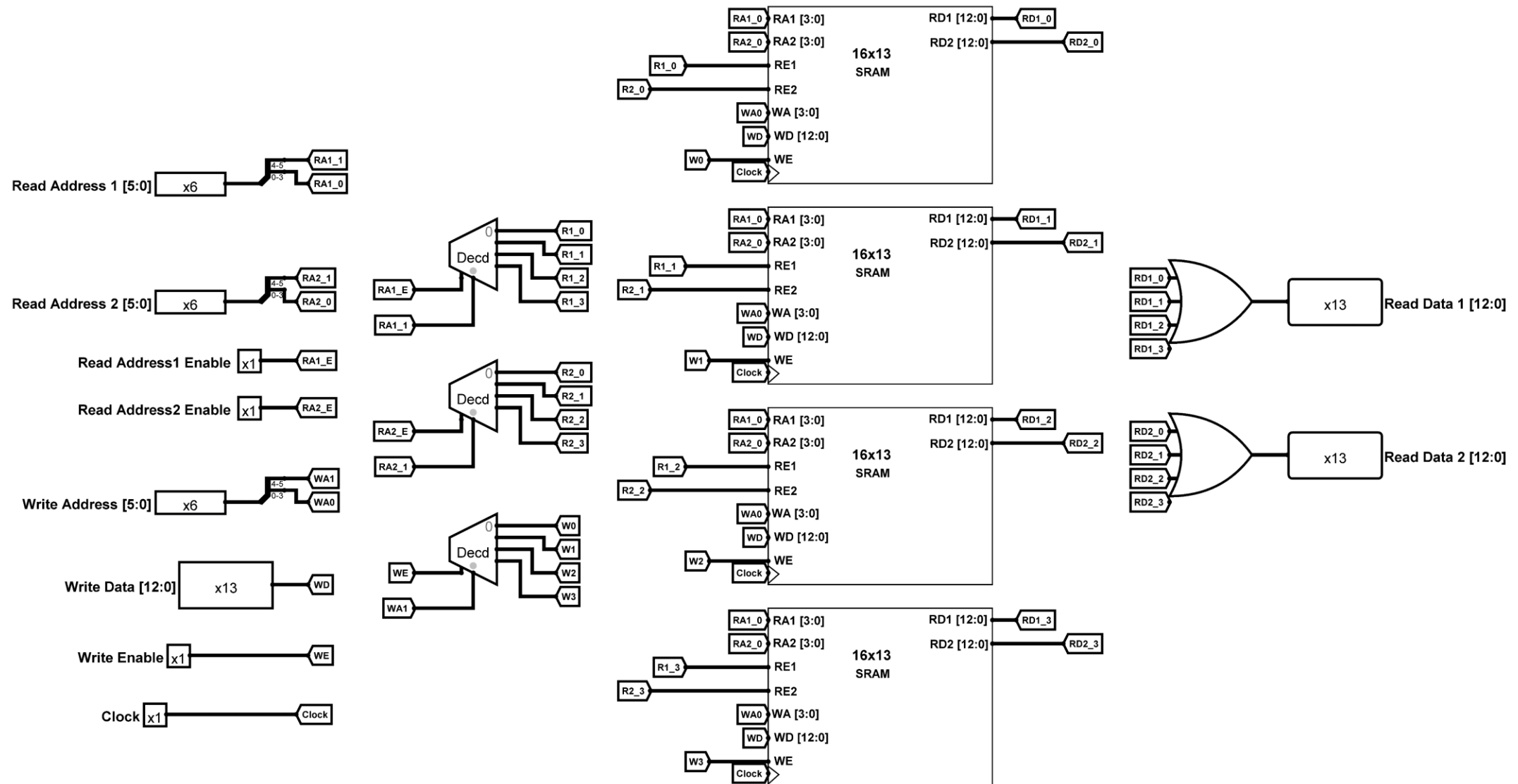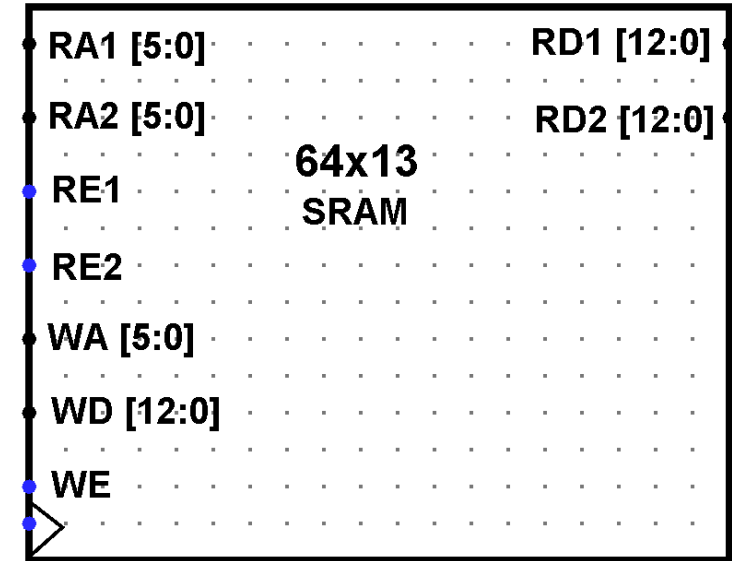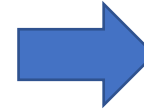# 16x13 Static RAM (SRAM) Cell
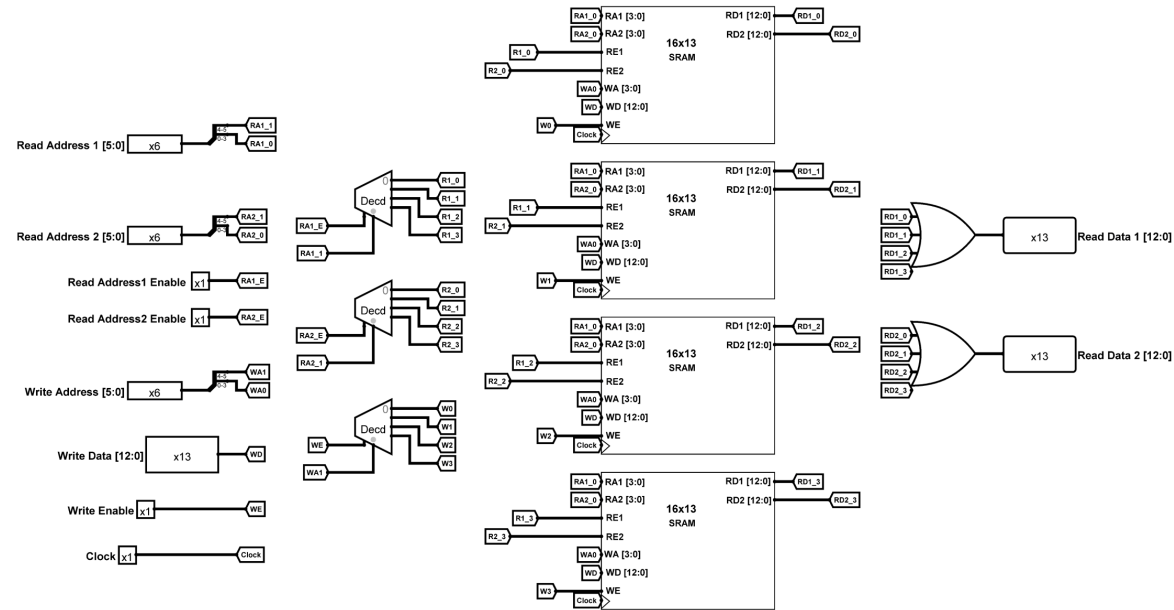
16x13 SRAM
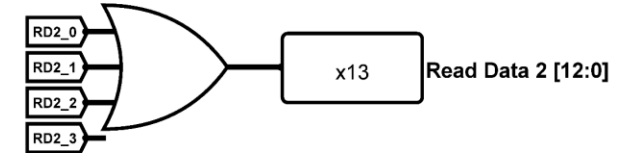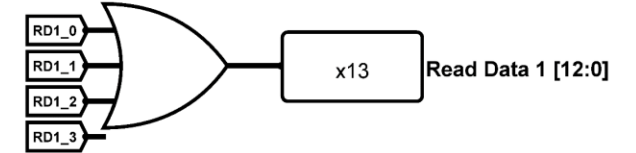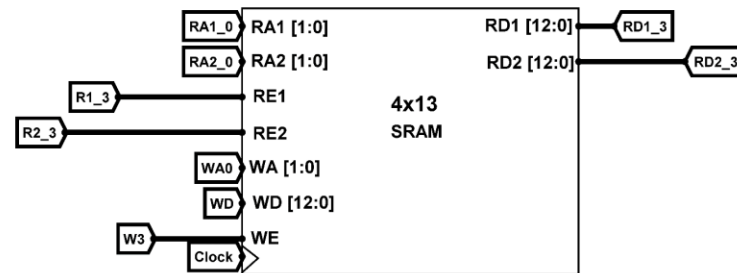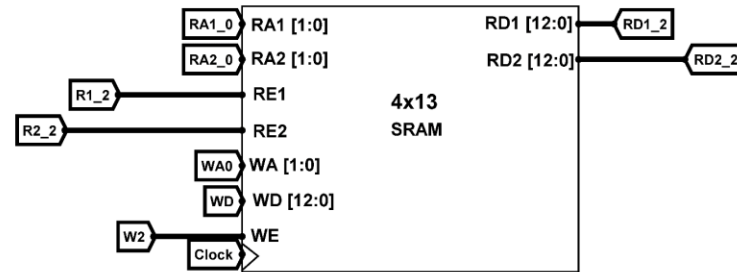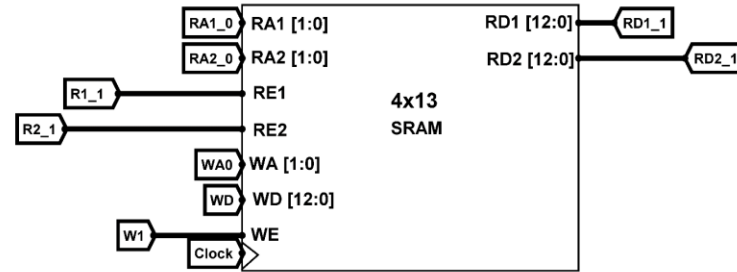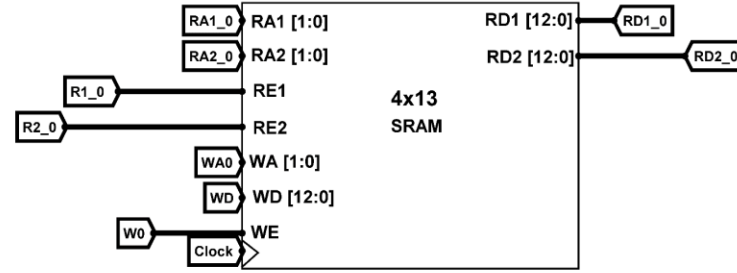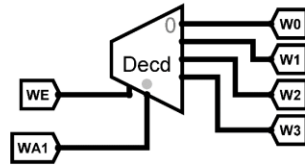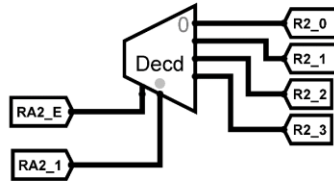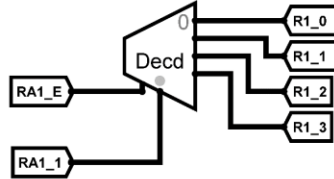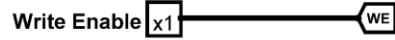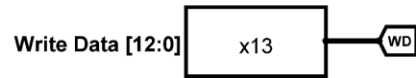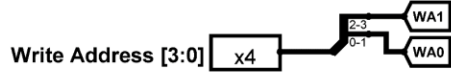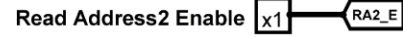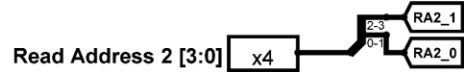
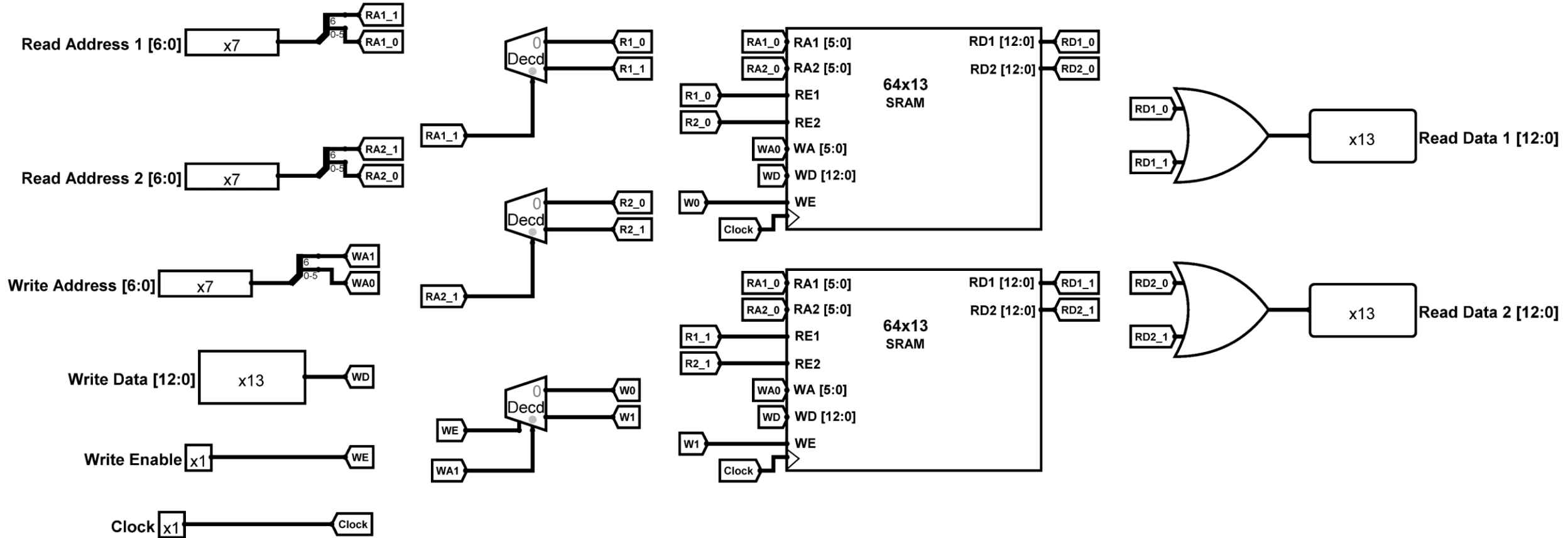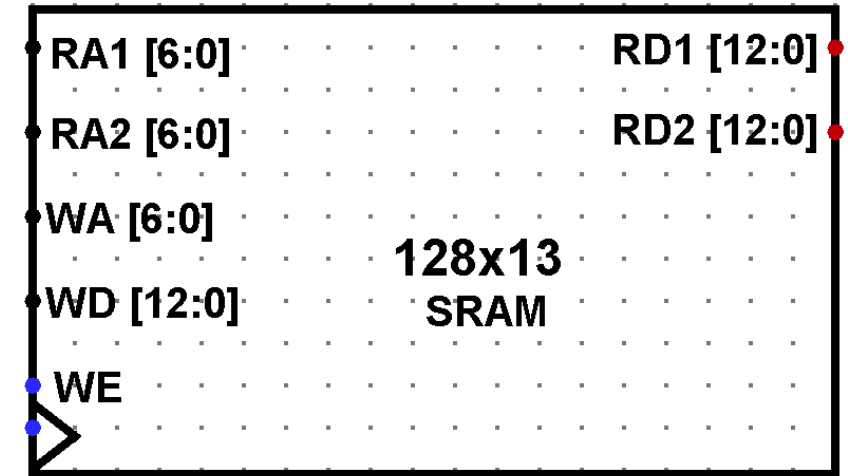# 16x13 SRAM
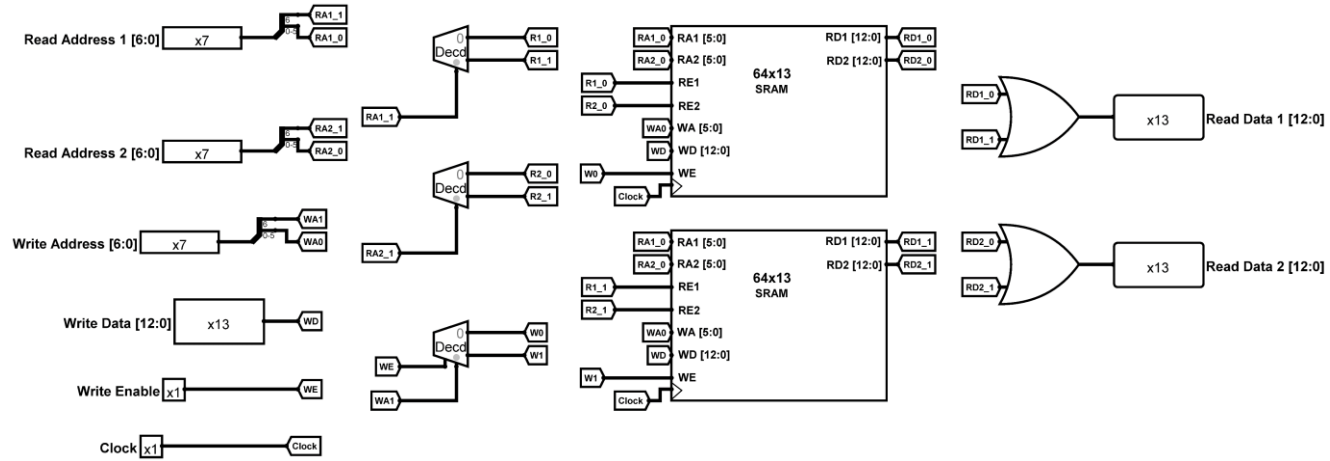
64x13 Static RAM (SRAM) Cell

64x13 SRAM

64x13 SRAM

128x13 Static RAM (SRAM) Cell

128x13 SRAM

128x13 SRAM

Thank You ☺