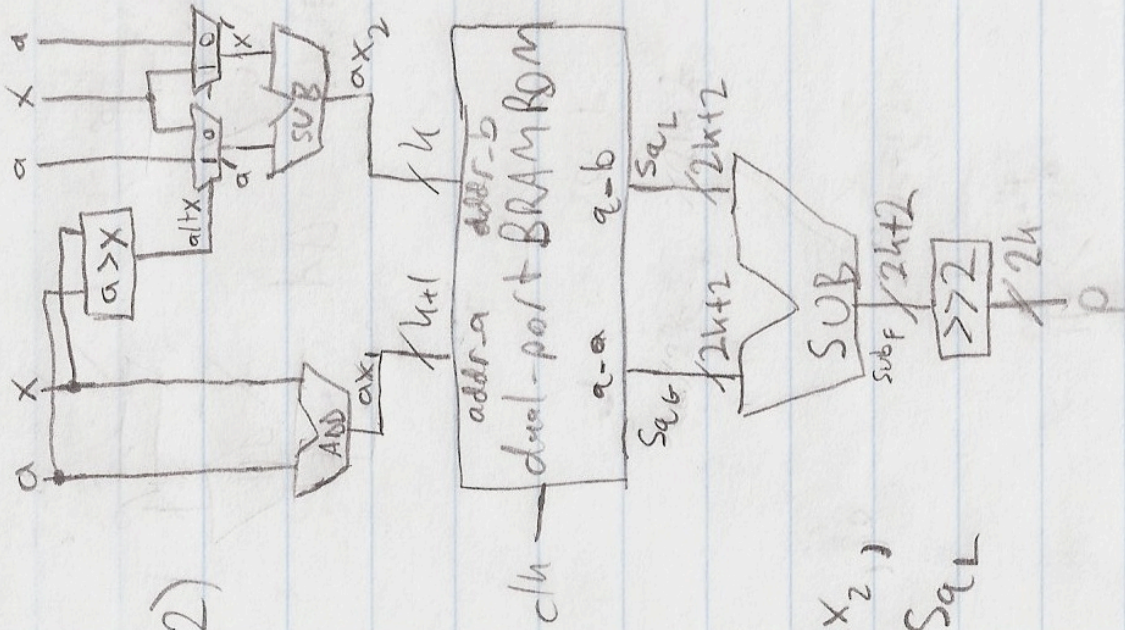


5. 2)



$$a' \geq x'$$

$$ax_1 \geq ax_2$$

$$\text{so: } Sa_G \geq Sa_L$$

1) 18kbit/BRAM, but w/o parity, only 16384 bits available.

$$2^m \cdot 2m = 2^9 \cdot 9216 < 16384 \checkmark$$

$$2^m \cdot 2m = 2^{10} \cdot 20480 > 16384 \times$$

$m=9$, result = 18 bits, 512 addresses available w/ single BRAM

$$\text{ROM size} = 2^{(k+1)} \cdot 2^{(k+1)} \text{ bits}$$

$$\# \text{ of BRAMs} = \text{ROM size} / 16384$$