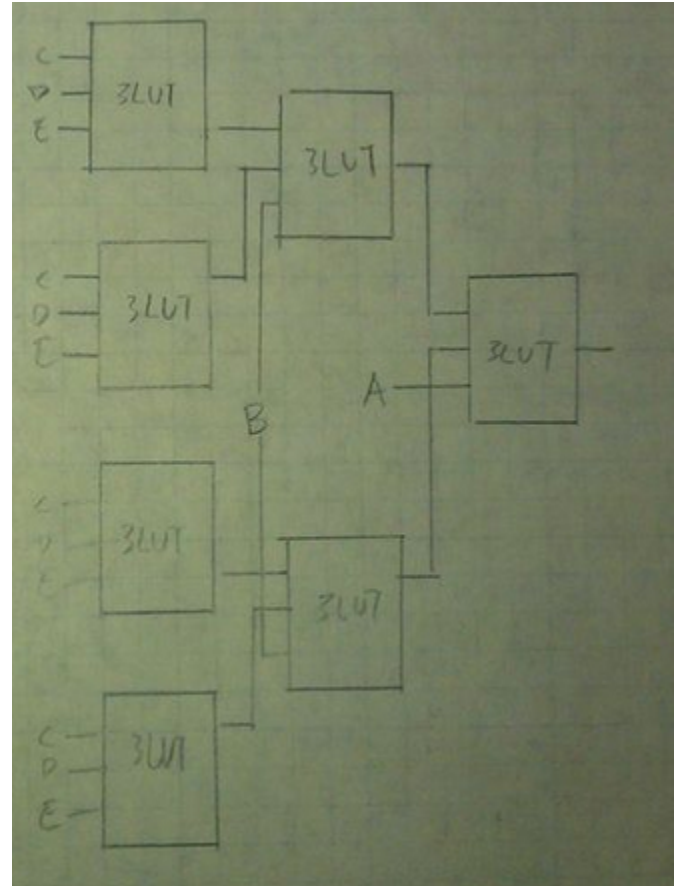
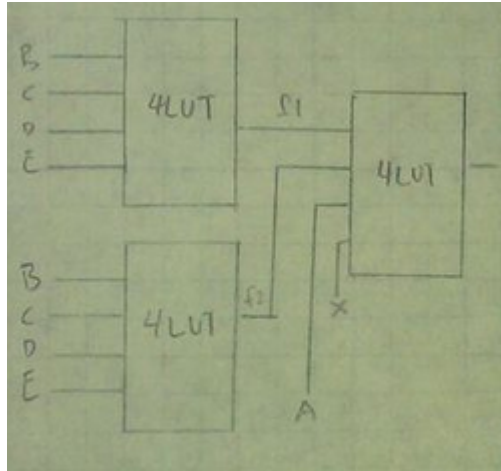


19.1



19.2

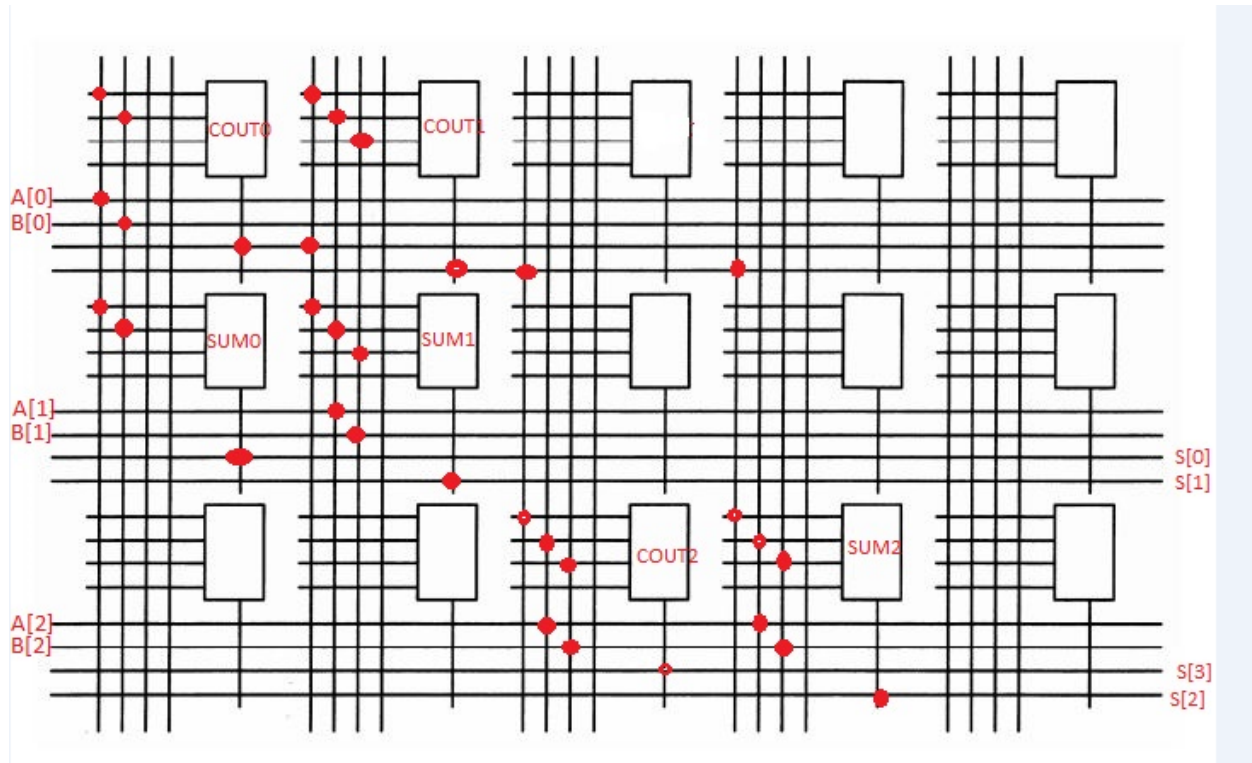
$$2^{(k-3)} = 1$$

19.3

63 4LUTs needed

The first 32 would store functions. The outputs of those functions would go into 16 4LUTs acting as MUXs. The output of these 16 LUTs would then go into 8 LUTs acting as MUX. This pattern goes on. With each level only having half the LUTs of the previous level.

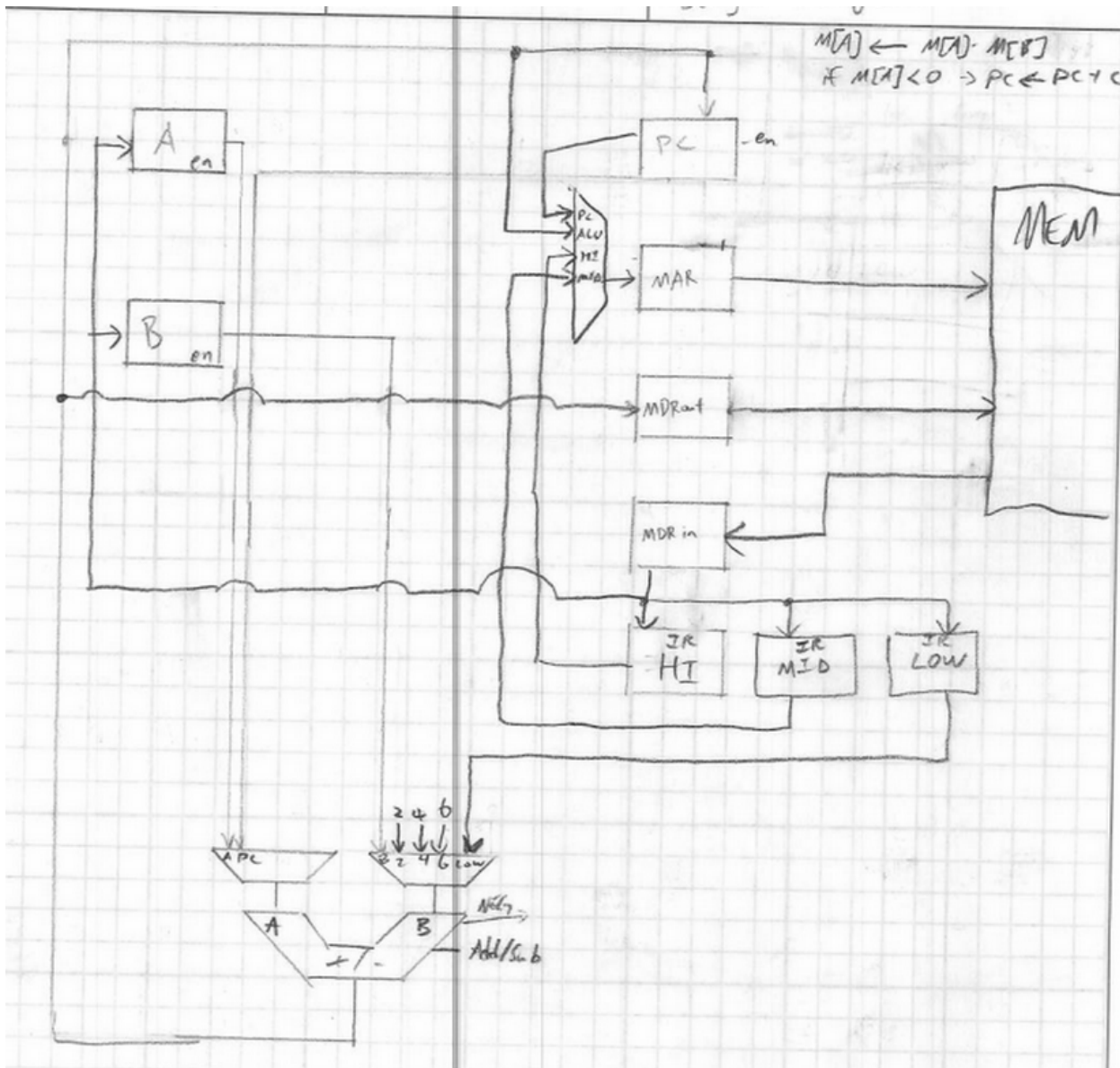
19.5



M1

Instruction Set Architecture = Instructions + Registers + How memory is accessed

M2



Outputs: Aen  
Ben  
PEn  
MARen  
MDRouten  
MDRinen  
IR\_HI\_en  
IR\_MIDen  
IR\_lowen  
MAR\_Mux  
ALU\_A\_Mux  
ALU\_B\_Mux  
Add/SubtH  
RE (memory)  
WE (memory)

