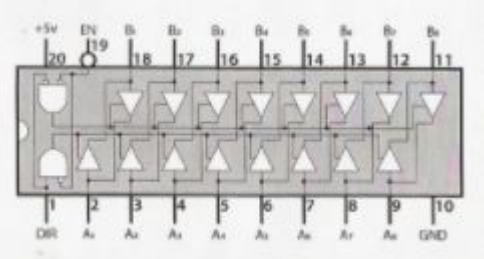
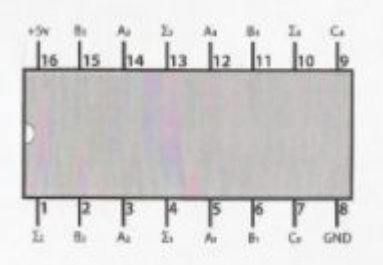
Ben Eater's 8 Bit Computer

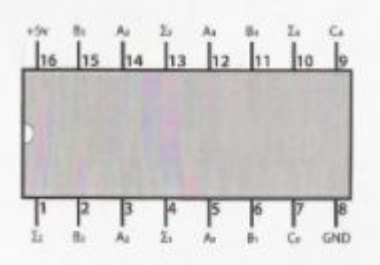
74LS245:
8-bit bus transceiver



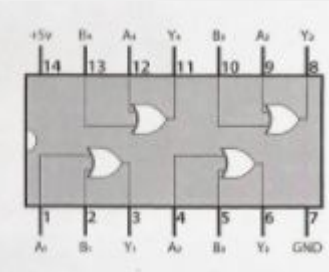
A 74LS283:
4-bit binary adder



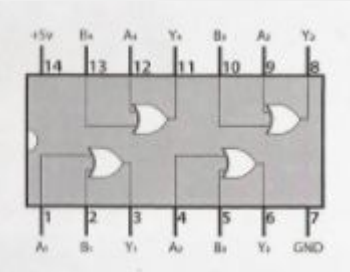
B 74LS283:
4-bit binary adder



74LS86:
XOR gate



74LS86:
XOR gate



Ben Eater's 8 Bit Computer

74LS86: XOR gate

A	B	Y
0	0	0
0	1	1
1	0	1
1	1	0

74LS173:
4-bit D register

This register stores 4 bits. You write data to it by holding G1 and G2 low and pulsing the clock.

74LS245:
8-bit bus transceiver

This allows 8- bit data from A to B or B to A depending on the DIR input. The EN input disables the device so that A and B are isolated.

74LS283:
4-bit binary adder

This chip performs addition of two 4-bit binary numbers. A+B=Σ. Co and C_4 are carry in and carry out for chaining multiple adders together