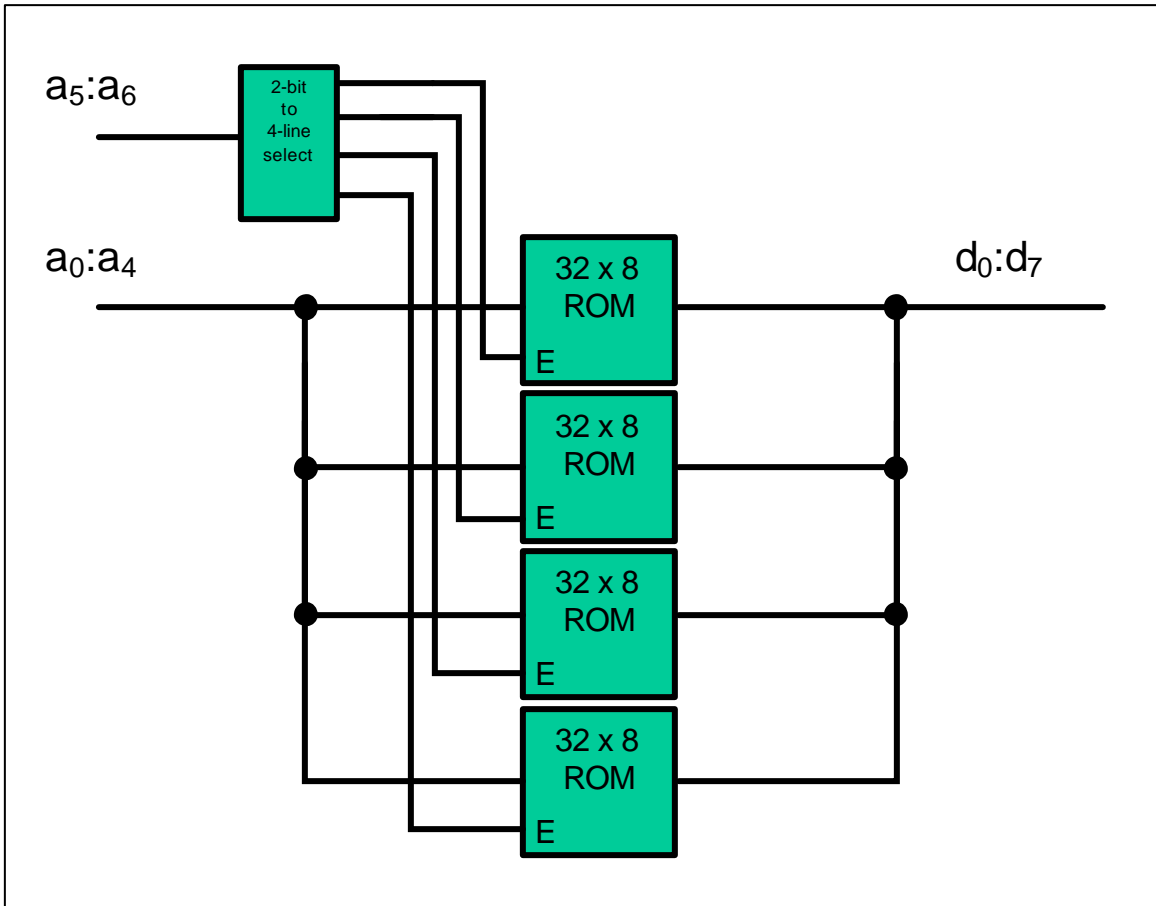
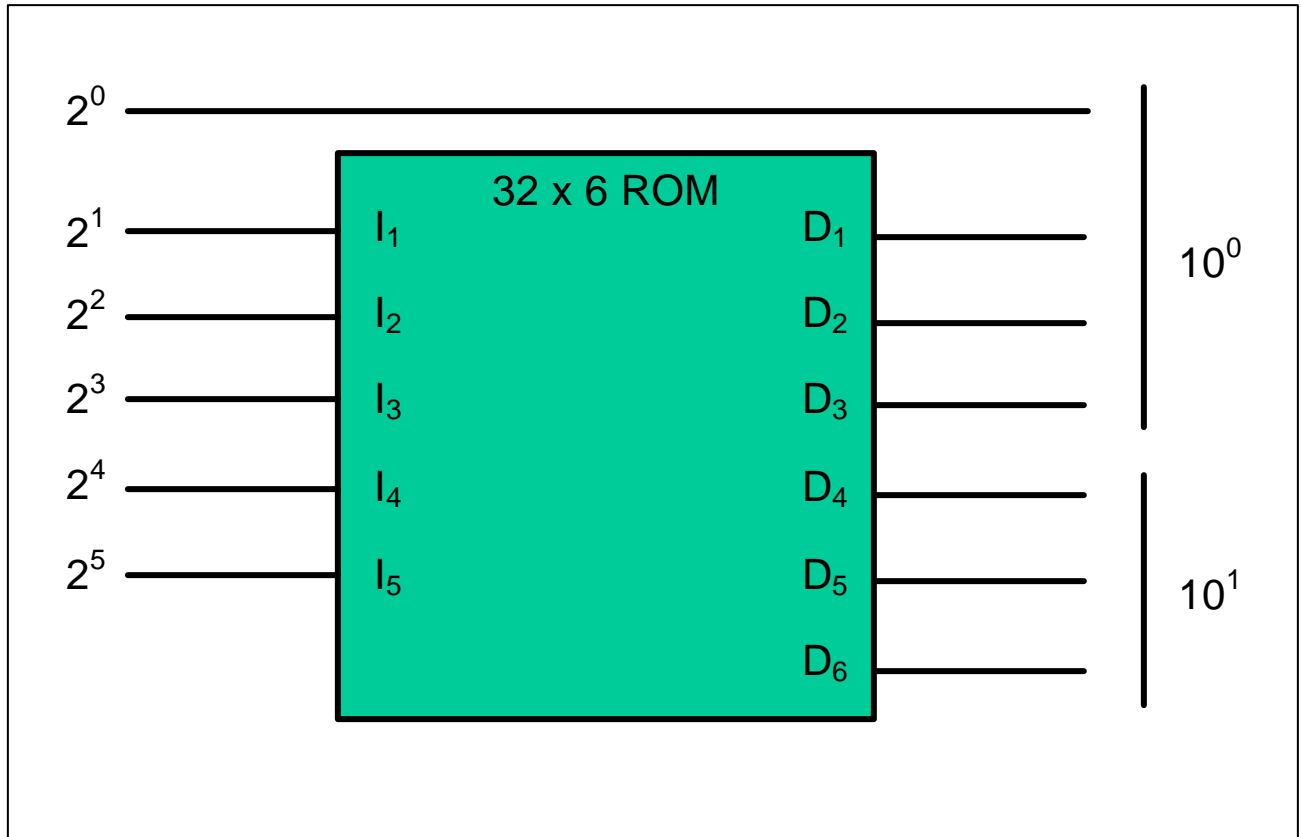


7-15) Given a 32 x 8 ROM chip with an enable input, show the external connections necessary to construct a 128 x 8 ROM with four chips and a decoder.



7-17) The 32 x 6 ROM together with the 2^0 lines as shown in Fig P7-17 converts a 6-bit binary number to its corresponding 2-digit BCD number. For example, binary 100001 converts to BCD 011 0011 (decimal 33). Specify the truth table for the ROM.



Value	Inputs					Outputs					
	I_5	I_4	I_3	I_2	I_1	D_6	D_5	D_4	D_3	D_2	D_1
00	0	0	0	0	0	0	0	0	0	0	0
02	0	0	0	0	1	0	0	0	0	0	1
04	0	0	0	1	0	0	0	0	0	1	0
06	0	0	0	1	1	0	0	0	0	1	1
08	0	0	1	0	0	0	0	1	1	0	0
10	0	0	1	0	1	0	0	1	0	0	0
12	0	0	1	1	0	0	0	1	0	0	1
14	0	0	1	1	1	0	0	1	0	1	0
16	0	1	0	0	0	0	0	1	0	1	1
18	0	1	0	0	1	0	0	1	1	0	0
20	0	1	0	1	0	0	1	0	0	0	0
22	0	1	0	1	1	0	1	0	0	0	1
24	0	1	1	0	0	0	1	0	0	1	0
26	0	1	1	0	1	0	1	0	0	1	1
28	0	1	1	1	0	0	1	0	1	0	0
30	0	1	1	1	1	0	1	1	0	0	0
32	1	0	0	0	0	0	1	1	0	0	1
34	1	0	0	0	1	0	1	1	0	1	0
36	1	0	0	1	0	0	1	1	0	1	1
38	1	0	0	1	1	0	1	1	1	0	0

40	1	0	1	0	0	1	0	0	0	0	0
42	1	0	1	0	1	1	0	0	0	0	1
44	1	0	1	1	0	1	0	0	0	1	0
46	1	0	1	1	1	1	0	0	0	1	1
48	1	1	0	0	0	1	0	0	1	0	0
50	1	1	0	0	1	1	0	1	0	0	0
52	1	1	0	1	0	1	0	1	0	0	1
54	1	1	0	1	1	1	0	1	0	1	0
56	1	1	1	0	0	1	0	1	0	1	1
58	1	1	1	0	1	1	0	1	1	0	0
60	1	1	1	1	0	1	1	0	0	0	0
62	1	1	1	1	1	1	1	0	0	0	1