

## Lect 5 - Page 2 (further explanations)

You have a binary representation of a binary number and you want to show this human readable with a 7-seg. display (as in alarm clocks), which has 7 specially arranged LEDs



For each LED you need now a conversion from the 8bit binary representation to the 7 seg. display

eg. LED5 (see truth table on page 2)

A	B	C	D	Dec.	7 seg		out
0	0	0	0	0	→		LED5 = on 1
0	0	0	1	1	→		LED5 = off 0
0	0	1	0	2	→		LED5 = on 1
0	0	1	1	3	→		LED5 = off 0
0	1	0	0	4	→		LED5 = on 1
0	1	0	1	5	→		LED5 = off 0
1	0	1	0	10	→		LED5 = on 1

⇓ 0 = as we have only one display

⇒ you can build up a ~~the~~ truth table for each of the 7 LEDs and simplify each one as known with KV-Diagram