

Seven segment Display

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CSE Lateral

	A	B	C	D	a	b	c	d	e	f	g
0	0	0	0	0	1	1	1	1	1	1	0
1	0	0	0	1	0	1	1	0	0	0	0
2	0	0	1	0	1	1	0	1	0	0	0
3	0	0	1	1	1	1	0	1	1	0	1
4	0	1	0	0	0	1	1	0	0	0	1
5	0	1	0	1	1	0	1	0	0	1	1
6	0	1	1	0	1	0	1	1	0	1	1
7	0	1	1	1	1	1	1	1	0	0	1
8	1	0	0	0	1	1	1	0	0	0	0
9	1	0	0	1	1	1	1	1	0	1	1

$a = \overline{A} \overline{B} \overline{C} \overline{D}$ $b = \overline{A} \overline{B} \overline{C} D$ $c = \overline{A} \overline{B} C \overline{D}$ $d = \overline{A} \overline{B} C D$ $e = \overline{A} B \overline{C} \overline{D}$ $f = \overline{A} B \overline{C} D$ $g = \overline{A} B C \overline{D}$ $h = \overline{A} B C D$

Kmap for a

CD	$\overline{C}\overline{D}$	$\overline{C}D$	$C\overline{D}$	CD
$\overline{A}\overline{B}$	1	0	1	1
$\overline{A}B$	0	1	1	1
AB	x	x	x	x
$A\overline{B}$	1	1	x	x

$$a = \overline{C} + \overline{A} + \overline{B} + \overline{D}$$

Kmap for b

CD	$\overline{C}\overline{D}$	$\overline{C}D$	$C\overline{D}$	CD
$\overline{A}\overline{B}$	1	1	1	1
$\overline{A}B$	1	0	1	0
AB	x	x	x	x
$A\overline{B}$	1	1	x	x

$$b = \overline{B} + \overline{C} + \overline{D}$$

Kmap for e

CD	$\overline{C}\overline{D}$	$\overline{C}D$	$C\overline{D}$	CD
$\overline{A}\overline{B}$	1	0	0	1
$\overline{A}B$	0	0	0	1
AB	x	x	x	x
$A\overline{B}$	1	0	x	x

$$e = \overline{C} + \overline{D}$$

Kmap for d

CD	$\overline{C}\overline{D}$	$\overline{C}D$	$C\overline{D}$	CD
$\overline{A}\overline{B}$	1	0	1	1
$\overline{A}B$	0	1	0	1
AB	x	x	x	x
$A\overline{B}$	1	1	x	x

$$d = \overline{B} + \overline{C} + \overline{D}$$

Kmap for c

CD	$\overline{C}\overline{D}$	$\overline{C}D$	$C\overline{D}$	CD
$\overline{A}\overline{B}$	1	1	1	0
$\overline{A}B$	1	1	1	1
AB	x	x	x	x
$A\overline{B}$	1	1	x	x

$$c = \overline{B} + \overline{D}$$

Kmap for f

CD	$\overline{C}\overline{D}$	$\overline{C}D$	$C\overline{D}$	CD
$\overline{A}\overline{B}$	1	0	0	0
$\overline{A}B$	1	1	0	1
AB	x	x	x	x
$A\overline{B}$	1	1	x	x

$$f = \overline{A} + \overline{C} + \overline{D} + \overline{B}$$

Kmap for g

CD	$\overline{C}\overline{D}$	$\overline{C}D$	$C\overline{D}$	CD
$\overline{A}\overline{B}$	0	0	1	1
$\overline{A}B$	1	1	0	1
AB	x	x	x	x
$A\overline{B}$	1	1	x	x

$$g = \overline{A} + \overline{B} + \overline{C} + \overline{D}$$

