

EX3

$$f = \sum m(4, 5, 6, 7, 11, 12, 13, 14, 15, 22, 27, 31)$$

~~00000~~

Σ

4	00100	1
5	00101	2
6	00110	2
7	00111	3
11	01011	3
12	01100	2
13	01101	3
14	01110	3
15	01111	4
22	10110	3
27	11011	4
31	11111	5

4	00100	✓
5	00101	✓
6	00110	✓
12	01100	✓
7	00111	✓
11	01011	✓
13	01101	✓
14	01110	✓
22	10110	✓
15	01111	✓
27	11011	✓
31	11111	✓

4,5	0010x	✓
4,6	001x0	✓
4,12	0x100	✓
5,7	001x1	✓
6,7	0011x	✓
5,13	0x101	✓
6,14	0x110	✓
4,22	x0110	✓
12,13	0110x	✓
12,14	011x0	✓
7,15	0x111	✓
11,13	01x11	✓
11,27	x1011	✓
13,15	011x1	✓
14,27	0111x	✓
15,31	x1111	✓
27,31	11x11	✓

4,5,6,7 001XX

4,5,12,13 0X10X

~~4,6,5,7 001XX~~

4,6,12,14 0X1X0

~~4,12,5,13 0X10X~~

~~4,12,6,14 0X1X0~~

5,7,11,15 0X1X1

6,7,14,15 0X11X

~~5,13,7,15 0X1X1~~

~~6,14,7,15 0X11X~~

12,13,14,15 011XX

~~12,14,13,15 011XX~~

~~7,15,27,31~~

~~11,15,27,31 0XX11~~

11,15,27,31 XIX11

~~11,27,15,31 XIX11~~

4,5,6,7 001XX ✓

4,5,12,13 0X10X ✓

4,6,12,14 0X1X0 ✓

5,7,11,15 0X1X1 ✓

6,7,14,15 0X11X ✓

12,13,14,15 011XX ✓

11,15,27,31 XIX11

4,5,6,7
12,13,14,15 0X1XX

~~4,5,12,13 0X1XX~~
~~6,7,14,15~~

~~4,6,12,14 0X1XX~~
~~5,7,11,15~~

6, 22 $\bar{b}cde$

11, 15, 27, 31 bde

4, 5, 6, 7
12, 13, 14, 15 $\bar{a}c$

4	5	6	7	11	12	13	14	15	22	27	31
X	X	X	X	X	X	X	X	X	X	X	X

$$f = \bar{a}c + bde + \bar{b}cde$$