

EX 4
Don't cares

$$f = \sum (5, 7, 11, 12, 27, 29) + \sum d (14, 20, 21, 22, 23)$$

5	00101	x
7	00111	3/2
11	01011	3
12	01100	x
14	01110	3
20	10100	2
21	10101	3
22	10110	2
23	10111	4
27	11011	4
27	11011	4
29	11101	4

5	00101	✓
7	01100	✓
20	10100	✓
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7	00111	✓
11	01011	✓
14	01110	✓
21	10101	✓
22	10110	✓
<hr/>		
23	10111	✓
27	11011	✓
29	11101	✓

5,7	001x1
5,21	x0101
12,14	011x0
	1010x
20,21	101x0
20,22	101x0
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7,23	x0111
11,27	x1011
21,22	101x1
21,21	1x101
23,23	1011x

5,7 001X1 ✓

5,21 X0101 ✓

12,14 011X0

20,21 1010X ✓

20,22 101X0 ✓

7,23 X0111 ✓

11,27 X1011

21,23 101X1 ✓

21,29 1X101

23,23 1011X ✓

12,14

11,27

21,29

5,7,21,23

20,22,21,23

5,7,21,23 X01X1

20,22,21,23 101XX

~~20,21,22,23 101XX~~

~~5,7,21,23 X01X1~~

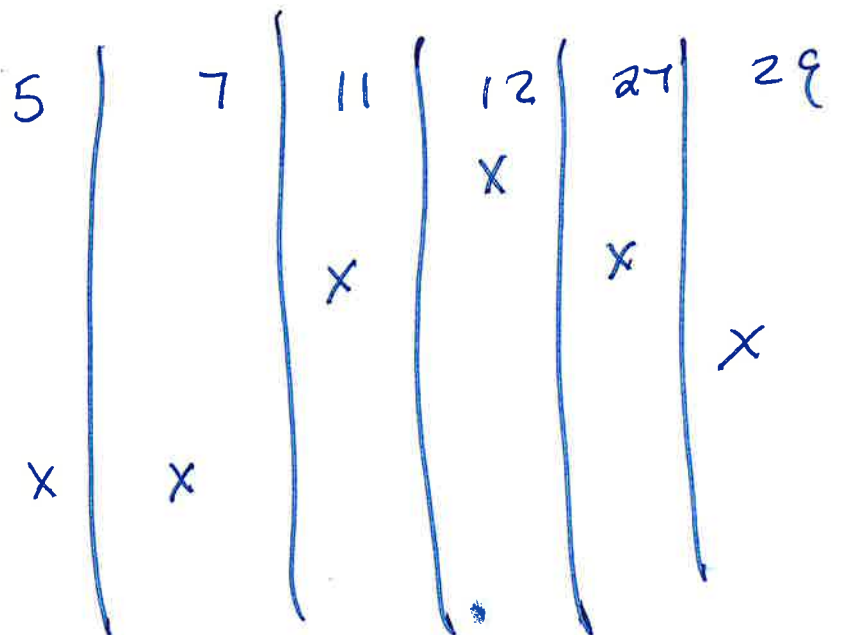
5,7,21,23 $\bar{a}bc\bar{e}$

12,14 $a\bar{b}c\bar{e}$

~~21,23~~

11,27

$$\bar{a}bc\bar{e} + b\bar{c}de + ac\bar{d}e + \bar{b}c\bar{e}$$



12, 14	$\bar{a}bc\bar{e}$
11, 27	$b\bar{c}de$
21, 29	$ac\bar{d}e$
5, 7, 21, 23	$\bar{b}ce$

$$F = \bar{a}bc\bar{e} + b\bar{c}de + ac\bar{d}e + \bar{b}ce$$