

(d)

AB \ CD	00	01	11	10
00	1	1	1	0
01	1	1	1	1
11	X	X	X	X
10	1	1	X	X

The Karnaugh map shows the following groupings:

- A group of four 1s in the first two columns (CD = 00, 01) for rows AB = 00, 01, which is labeled \bar{C} .
- A group of four 1s in the first two columns (CD = 00, 01) for rows AB = 00, 01, 11, 10, which is labeled D .
- A group of four 1s in the first two columns (CD = 00, 01) for rows AB = 00, 01, 11, 10, which is labeled B .

$$F = \bar{C} + D + B$$