Show All Solutions

Rosen, Discrete Mathematics and Its Applications, 6th edition
Extra Examples

Section 11.1—Boolean Functions

Extra Examples — *Page references correspond to locations of Extra Examples icons in the textbook.*

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p.754, icon at Example 10

#1. Prove the idempotent law $x = x \cdot x$ using the other identities of Boolean algebra listed in Table 5 of Section 11.1 the textbook.

See Solution

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p.754, icon at Example 10

#2. Prove the domination law $x \cdot 0 = 0$ using the other identities of Boolean algebra listed in Table 5 in Section 11.1 of the textbook.

See Solution

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p.754, icon at Example 10

#3. Using the properties of Boolean algebra, prove that

$$yz + x\overline{(xz)} + y(\overline{z} + 1) + \overline{z}x$$

can be simplified to give $y + \overline{z}x$.

See Solution