Lógica Digital (1001351)

Diagramas de Venn

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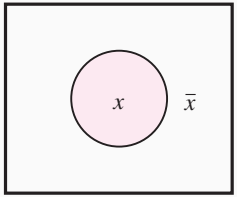
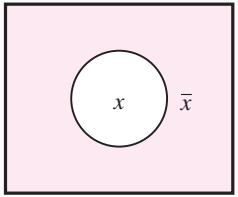
(a) Constant 1

(b) Constant 0



(c) Variable x



(d) $\overline{x}$

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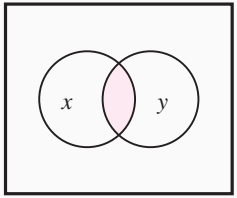
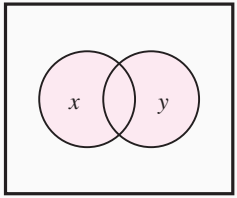
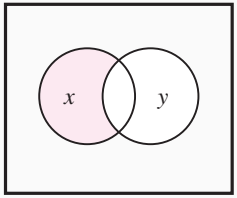


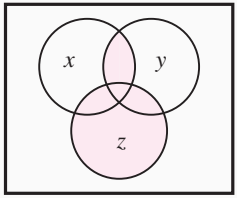
(e) $x \cdot y$



(f) $x + y$

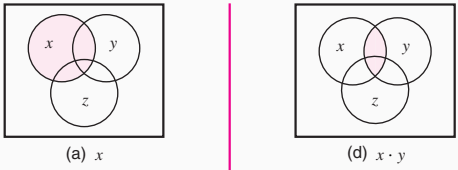


(g) $x \cdot \overline{y}$



(h) $x \cdot y + z$

Prova por diagrama de Venn



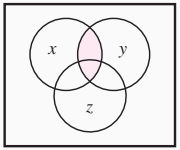
(a) x (d) $x \cdot y$

(b) $y + z$ (e) $x \cdot z$

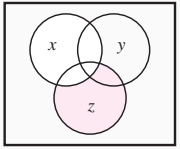
(c) $x \cdot (y + z)$ (f) $x \cdot y + x \cdot z$

Figure 2.15 Verification of the distributive property $x \cdot (y + z) = x \cdot y + x \cdot z$.

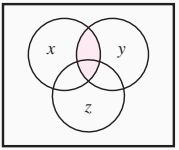
Prova por diagrama de Venn



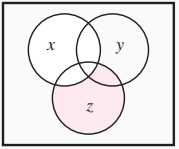
$x \cdot y$



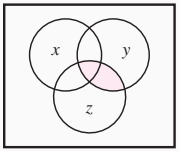
$\bar{x} \cdot z$



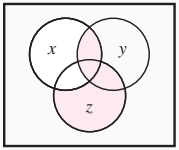
$x \cdot y$



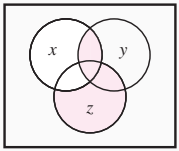
$\bar{x} \cdot z$



$y \cdot z$



$x \cdot y + \bar{x} \cdot z + y \cdot z$



$x \cdot y + \bar{x} \cdot z$

Figure 2.16 Verification of $x \cdot y + \bar{x} \cdot z + y \cdot z = x \cdot y + \bar{x} \cdot z$.

Bibliografia

Bibliografia

- Brown, S. & Vranesic, Z. - Fundamentals of Digital Logic with Verilog Design, 3rd Ed., Mc Graw Hill, 2009

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