Boolean Algebra Identities

1. $X + 0 = X$
2. $X.1 = X$
3. $X + 1 = 1$
4. $X.0 = 0$
5. $X + X = X$
6. $X.X = X$
7. $X + \overline{X} = 1$
8. $X.\overline{X} = 0$
9. $\overline{\overline{X}} = X$

Commutative

10. $X + Y = Y + X$
11. $XY = YX$

Associative

12. $X + (Y + Z) = (X + Y) + Z$
13. $X(YZ) = (XY)Z$

Distributive

14. $X(Y + Z) = XY + XZ$
15. $X + YZ = (X + Y)(X + Z)$

DeMorgan's

16. $\overline{X + Y} = \overline{X}.\overline{Y}$
17. $\overline{X.Y} = \overline{X} + \overline{Y}$