

# Boolean Algebra

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## Contents

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## 1 Laws

$$x \vee 0 = x$$

$$x \wedge 0 = 0$$

$$x \vee 1 = 1$$

$$x \wedge 1 = x$$

$$x \vee x = x$$

$$x \wedge x = x$$

$$x \wedge (x \vee y) = x$$

$$x \vee (x \wedge y) = x$$

$$x \wedge \neg x = 0$$

$$x \vee \neg x = 1$$

$$\neg x \wedge \neg y = \neg(x \vee y)$$

$$\neg x \vee \neg y = \neg(x \wedge y)$$