

Lógica

Tablas de verdad de las conectivas

p	\wedge	q
V	V	V
V	F	F
F	F	V
F	F	F

p	\vee	q
V	V	V
V	V	F
F	V	V
F	F	F

p	\rightarrow	q
V	V	V
V	F	F
F	V	V
F	V	F

p	\leftrightarrow	q
V	V	V
V	F	F
F	F	V
F	V	F

p	\uparrow	q
V	F	V
V	V	F
F	V	V
F	V	F

p	\downarrow	q
V	F	V
V	F	F
F	F	V
F	V	F

Leyes de Morgan

- ▶ $\sim(A \wedge B) \Leftrightarrow (\sim A) \vee (\sim B)$
 - ▶ $A \wedge B \Leftrightarrow \sim(\sim(A \vee B)) \Leftrightarrow \sim((\sim A) \vee (\sim B))$
- ▶ $A \Leftrightarrow \sim(\sim A)$
- ▶ $\sim(A \vee B) \Leftrightarrow (\sim A) \wedge (\sim B)$
 - ▶ $A \wedge B \Leftrightarrow \sim((\sim A) \vee (\sim B))$
- ▶ $A \vee B \Leftrightarrow (\sim A) \rightarrow B$
- ▶ $A \wedge B \Leftrightarrow \sim(A \rightarrow (\sim B))$
- ▶ $A \leftrightarrow B \Leftrightarrow (A \rightarrow B) \wedge (B \rightarrow A)$
- ▶ $\sim A \Leftrightarrow A \uparrow A$
- ▶ $A \vee B \Leftrightarrow (A \uparrow A) \uparrow (B \uparrow B)$
- ▶ $A \wedge B \Leftrightarrow (A \uparrow B) \uparrow (A \uparrow B)$
- ▶ $\sim A \Leftrightarrow A \downarrow A$
- ▶ $A \vee B \Leftrightarrow (A \downarrow B) \downarrow (A \downarrow B)$
- ▶ $A \wedge B \Leftrightarrow (A \downarrow A) \downarrow (B \downarrow B)$
 - $A \downarrow B \Leftrightarrow \sim(A \vee B)$
 - $A \uparrow B \Leftrightarrow \sim(A \wedge B)$