

Truth-table Tests: Statements (Answers, EL pp. 64ff.)

1. $\sim P \vee P$ T-F TRUE

P	$\sim P$	\vee	P
T	F	T	T
F	T	T	F

2. $\sim(P \vee P)$ T-F INDETERMINATE

P	$\sim(P \vee P)$
T	F
F	T

3. $\sim(P \vee \sim P)$ T-F FALSE

P	$\sim(P \vee \sim P)$
T	F
F	F

4. $\sim A \supset (B \supset \sim A)$ T-F TRUE

A	B	$\sim A$	$(B \supset \sim A)$
T	T	F	F
T	F	F	T
F	T	T	T
F	F	T	T

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5. $\sim(A \supset (B \supset A))$ T-F FALSE

A	B	$\sim(A \supset (B \supset A))$
T	T	F
T	F	F
F	T	F
F	F	F

6. $\sim(A \supset B) \supset A$ T-F TRUE

A	B	$\sim(A \supset B)$	$\supset A$
T	T	F	T
T	F	T	T
F	T	F	F
F	F	F	F

7. $(\sim A \supset B) \supset A$ T-F INDETERMINATE

A	B	$(\sim A \supset B)$	$\supset A$
T	T	F	T
T	F	F	T
F	T	T	F
F	F	T	F

2

5. $\sim(A \supset (B \supset A))$ T-F FALSE

A	B	$\sim(A \supset (B \supset A))$
T	T	F
T	F	F
F	T	F
F	F	F

6. $\sim(A \supset B) \supset A$ T-F TRUE

A	B	$\sim(A \supset B)$	$\supset A$
T	T	F	T
T	F	T	T
F	T	F	F
F	F	F	F

7. $(\sim A \supset B) \supset A$ T-F INDETERMINATE

A	B	$(\sim A \supset B)$	$\supset A$
T	T	F	T
T	F	F	T
F	T	T	F
F	F	T	F

3

5. $\sim(A \supset (B \supset A))$ T-F FALSE

A	B	$\sim(A \supset (B \supset A))$
T	T	F
T	F	F
F	T	F
F	F	F

6. $\sim(A \supset B) \supset A$ T-F TRUE

A	B	$\sim(A \supset B)$	$\supset A$
T	T	F	T
T	F	T	T
F	T	F	F
F	F	F	F

7. $(\sim A \supset B) \supset A$ T-F INDETERMINATE

A	B	$(\sim A \supset B)$	$\supset A$
T	T	F	T
T	F	F	T
F	T	T	F
F	F	T	F

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5. $\sim(A \supset (B \supset A))$ T-F FALSE

A	B	$\sim(A \supset (B \supset A))$
T	T	F
T	F	F
F	T	F
F	F	F

6. $\sim(A \supset B) \supset A$ T-F TRUE

A	B	$\sim(A \supset B)$	$\supset A$
T	T	F	T
T	F	T	T
F	T	F	F
F	F	F	F

7. $(\sim A \supset B) \supset A$ T-F INDETERMINATE

A	B	$(\sim A \supset B)$	$\supset A$
T	T	F	T
T	F	F	T
F	T	T	F
F	F	T	F

5

5. $\sim(A \supset (B \supset A))$ T-F FALSE

A	B	$\sim(A \supset (B \supset A))$
T	T	F
T	F	F
F	T	F
F	F	F

6. $\sim(A \supset B) \supset A$ T-F TRUE

A	B	$\sim(A \supset B)$	$\supset A$
T	T	F	T
T	F	T	T
F	T	F	F
F	F	F	F

7. $(\sim A \supset B) \supset A$ T-F INDETERMINATE

A	B	$(\sim A \supset B)$	$\supset A$
T	T	F	T
T	F	F	T
F	T	T	F
F	F	T	F

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