

Logic Truth Table Review

Translate each statement, then complete the combined truth table.

T = True; F = False

Translation

p: a library book is overdue; q: a reminder is sent

1. (a library book is overdue and not (a reminder is sent))

2. (not (a library book is overdue) and not (a reminder is sent))

3. (a library book is overdue and a reminder is sent)

4. (not (a library book is overdue) and a reminder is sent)

p	q	Statement 1	Statement 2	Statement 3	Statement 4
T	T				
T	F				
F	T				
F	F				

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Answer key

Translate each statement, then complete the combined truth table.

T = True; F = False

Translation

p: a library book is overdue; q: a reminder is sent

1. (a library book is overdue and not (a reminder is sent))

$(p \wedge \neg(q))$

2. (not (a library book is overdue) and not (a reminder is sent))

$(\neg(p) \wedge \neg(q))$

3. (a library book is overdue and a reminder is sent)

$(p \wedge q)$

4. (not (a library book is overdue) and a reminder is sent)

$(\neg(p) \wedge q)$

p	q	Statement 1	Statement 2	Statement 3	Statement 4
T	T	F	F	T	F
T	F	T	F	F	F
F	T	F	F	F	T
F	F	F	T	F	F