

1. Fill in the missing values of the following truth table. *Note: You may need to include more columns in your truth table to decide the truth values in the right-most column below.*

p	q	$p \rightarrow (q \vee \sim p)$
T	T	
T	F	
F	T	
F	F	

A.

$p \rightarrow (q \vee \sim p)$
T
F
F
T

B.

$p \rightarrow (q \vee \sim p)$
T
T
F
T

C.

$p \rightarrow (q \vee \sim p)$
T
F
T
T

D.

$p \rightarrow (q \vee \sim p)$
T
T
T
F

E.

$p \rightarrow (q \vee \sim p)$
T
T
T
T

F.

$p \rightarrow (q \vee \sim p)$
T
F
T
F

G.

$p \rightarrow (q \vee \sim p)$
T
T
F
F

H.

$p \rightarrow (q \vee \sim p)$
T
F
F
F

2. Fill in the missing values of the following truth table. *Note: You may need to include more columns in your truth table to decide the truth values in the right-most column below.*

p	q	$\sim (p \vee q)$
T	T	
T	F	
F	T	
F	F	

A.

$\sim (p \vee q)$
F
T
F
T

B.

$\sim (p \vee q)$
F
T
T
F

C.

$\sim (p \vee q)$
T
T
T
T

D.

$\sim (p \vee q)$
F
F
F
T

E.

$\sim (p \vee q)$
F
F
F
T

F.

$\sim (p \vee q)$
T
F
F
F

G.

$\sim (p \vee q)$
T
T
F
F

H.

$\sim (p \vee q)$
T
F
T
F

3. Fill in the missing values of the following truth table. *Note: You may need to include more columns in your truth table to decide the truth values in the right-most column below.*

p	q	$\sim q \rightarrow \sim p$
T	T	
T	F	
F	T	
F	F	

A.

$\sim q \rightarrow \sim p$
T
F
F
T

B.

$\sim q \rightarrow \sim p$
T
T
F
T

C.

$\sim q \rightarrow \sim p$
T
T
F
F

D.

$\sim q \rightarrow \sim p$
T
T
T
F

E.

$\sim q \rightarrow \sim p$
T
F
T
F

F.

$\sim q \rightarrow \sim p$
T
F
T
T

G.

$\sim q \rightarrow \sim p$
T
T
T
T

H.

$\sim q \rightarrow \sim p$
T
F
F
F

4. Fill in the missing values of the following truth table. *Note: You may need to include more columns in your truth table to decide the truth values in the right-most column below.*

p	q	r	$(q \rightarrow p) \vee \sim r$
T	T	T	
T	T	F	
T	F	T	
T	F	F	
F	T	T	
F	T	F	
F	F	T	
F	F	F	

A.

$(q \rightarrow p) \vee \sim r$
T
T
F
T
F
F
F
F

B.

$(q \rightarrow p) \vee \sim r$
T
T
T
T
T
T
T
T

C.

$(q \rightarrow p) \vee \sim r$
T
T
F
T
F
T
F
T

D.

$(q \rightarrow p) \vee \sim r$
T
T
F
F
T
F
F
F

MORE OPTIONS ON NEXT PAGE...

E.	$(q \rightarrow p) \vee \sim r$
	<i>T</i>
	<i>T</i>
	<i>T</i>
	<i>T</i>
	<i>F</i>
	<i>T</i>
	<i>T</i>

F.	$(q \rightarrow p) \vee \sim r$
	<i>T</i>
	<i>F</i>
	<i>T</i>
	<i>T</i>
	<i>F</i>
	<i>F</i>
	<i>T</i>

G.	$(q \rightarrow p) \vee \sim r$
	<i>T</i>
	<i>T</i>
	<i>T</i>
	<i>F</i>
	<i>F</i>
	<i>F</i>
	<i>T</i>

H.	$(q \rightarrow p) \vee \sim r$
	<i>T</i>
	<i>F</i>
	<i>T</i>
	<i>F</i>
	<i>T</i>
	<i>F</i>
	<i>F</i>

5. Fill in the missing values of the following truth table. *Note: You may need to include more columns in your truth table to decide the truth values in the right-most column below.*

p	q	$(p \vee q) \rightarrow \sim p$
T	T	
T	F	
F	T	
F	F	

A.

$(p \vee q) \rightarrow \sim p$
F
T
T
F

B.

$(p \vee q) \rightarrow \sim p$
T
T
T
T

C.

$(p \vee q) \rightarrow \sim p$
T
T
F
F

D.

$(p \vee q) \rightarrow \sim p$
F
F
T
T

E.

$(p \vee q) \rightarrow \sim p$
F
F
F
T

F.

$(p \vee q) \rightarrow \sim p$
F
T
F
T

G.

$(p \vee q) \rightarrow \sim p$
T
F
T
F

H.

$(p \vee q) \rightarrow \sim p$
T
F
F
F

6. Fill in the missing values of the following truth table. *Note: You may need to include more columns in your truth table to decide the truth values in the right-most column below.*

p	q	r	$(r \wedge q) \vee (p \wedge q)$
T	T	T	
T	T	F	
T	F	T	
T	F	F	
F	T	T	
F	T	F	
F	F	T	
F	F	F	

A.

$(r \wedge q) \vee (p \wedge q)$
T
T
T
T
F
T
T
T

B.

$(r \wedge q) \vee (p \wedge q)$
T
T
T
T
T
T
T
T

C.

$(r \wedge q) \vee (p \wedge q)$
T
T
F
T
F
T
F
T

D.

$(r \wedge q) \vee (p \wedge q)$
T
T
F
T
F
F
F
F

MORE OPTIONS ON NEXT PAGE...

	$(r \wedge q) \vee (p \wedge q)$
E.	<i>T</i>
	<i>T</i>
	<i>F</i>
	<i>F</i>
	<i>T</i>
	<i>F</i>
	<i>F</i>
	<i>F</i>

	$(r \wedge q) \vee (p \wedge q)$
F.	<i>T</i>
	<i>F</i>
	<i>T</i>
	<i>F</i>
	<i>T</i>
	<i>F</i>
	<i>F</i>
	<i>F</i>

	$(r \wedge q) \vee (p \wedge q)$
G.	<i>T</i>
	<i>T</i>
	<i>T</i>
	<i>F</i>
	<i>F</i>
	<i>F</i>
	<i>T</i>
	<i>F</i>

	$(r \wedge q) \vee (p \wedge q)$
H.	<i>T</i>
	<i>F</i>
	<i>T</i>
	<i>T</i>
	<i>F</i>
	<i>F</i>
	<i>T</i>
	<i>T</i>

7. Fill in the missing values of the following truth table. *Note: You may need to include more columns in your truth table to decide the truth values in the right-most column below.*

p	q	r	$p \wedge (q \vee \sim r)$
T	T	T	
T	T	F	
T	F	T	
T	F	F	
F	T	T	
F	T	F	
F	F	T	
F	F	F	

A.

$p \wedge (q \vee \sim r)$
T
F
T
F
T
F
F
F

B.

$p \wedge (q \vee \sim r)$
T
T
T
T
F
T
T
T

C.

$p \wedge (q \vee \sim r)$
T
T
T
T
T
T
T
T

D.

$p \wedge (q \vee \sim r)$
T
T
F
T
F
T
F
T

MORE OPTIONS ON NEXT PAGE...

	$p \wedge (q \vee \sim r)$
E.	<i>T</i>
	<i>T</i>
	<i>F</i>
	<i>T</i>
	<i>F</i>
	<i>F</i>
	<i>F</i>
	<i>F</i>

	$p \wedge (q \vee \sim r)$
F.	<i>T</i>
	<i>T</i>
	<i>F</i>
	<i>F</i>
	<i>T</i>
	<i>F</i>
	<i>F</i>
	<i>F</i>

	$p \wedge (q \vee \sim r)$
G.	<i>T</i>
	<i>F</i>
	<i>T</i>
	<i>T</i>
	<i>F</i>
	<i>F</i>
	<i>T</i>
	<i>T</i>

	$p \wedge (q \vee \sim r)$
H.	<i>T</i>
	<i>T</i>
	<i>T</i>
	<i>F</i>
	<i>F</i>
	<i>F</i>
	<i>T</i>
	<i>F</i>

8. Fill in the missing values of the following truth table. *Note: You may need to include more columns in your truth table to decide the truth values in the right-most column below.*

p	q	$q \rightarrow p$
T	T	
T	F	
F	T	
F	F	

A.

$q \rightarrow p$
T
F
T
F

B.

$q \rightarrow p$
T
F
T
T

C.

$q \rightarrow p$
T
T
T
F

D.

$q \rightarrow p$
T
F
F
F

E.

$q \rightarrow p$
T
T
T
T

F.

$q \rightarrow p$
T
T
F
F

G.

$q \rightarrow p$
T
F
F
T

H.

$q \rightarrow p$
T
T
F
T