

Complete the following truth tables by finding the truth values of the Boolean expressions for all combinations of the Boolean inputs p, q, and r. F and T represent false and true, respectively.

p	q	$(p q)$	$!(p q)$
F	F	F	
F	T		
T	F		
T	T		

(Hint: There are 8 combinations of the Boolean inputs p, q, and r.)

p	q	r	$(p \& \& q)$	$!r$	$(p \& \& q) !r$
F	F	F	F	T	
F	F	T			
F	T	F			
F	T	T			
T	F	F			
T	F	T			
T	T	F	T		
T	T	T	T		

Complete the values for p, q, and r and then compute the columns from left to right to build up to the answer to $!(p \& \& (q || !r))$

p	q	r	$!r$	$(q !r)$	$(p \& \& (q !r))$	$!(p \& \& (q !r))$
F	F	F				
F	F	T				
F	T	F				
F	T	T				