

6.27

 $(A \wedge B) \vee (C \wedge D)$ $(B \wedge C) \vee (D \wedge E)$ $C \vee (A \wedge E)$

1		$(A \wedge B) \vee (C \wedge D)$	
2		$(B \wedge C) \vee (D \wedge E)$	
3		$A \wedge B$	
4		A	\wedge elim 3
5		B	\wedge elim 3
6		$D \wedge E$	
7		E	\wedge elim 6
8		$A \wedge E$	\wedge intro 7
9		$C \vee (A \wedge E)$	\vee intro
10		$B \wedge C$	
11		C	\wedge elim 10
12		$C \vee (A \vee E)$	\vee intro 11
13		$C \vee (A \wedge D)$	\vee elim 6-12
14		$C \wedge D$	
15		C	elim 15
16		D	elim 15
17		$B \wedge C$	
18		C	\wedge elim 17
19		$C \vee (A \wedge B)$	\vee intro 18
20		$D \wedge E$	
21		C	Bit 20
22		$C \vee (A \wedge B)$	\vee intro 21
23			
24		$C \vee (A \wedge B)$	\vee elim 19-22
25		$C \vee (A \wedge B)$	\vee elim 3-24