

$CR_3 ( r(iR_1, iR_2), f(i_1, i_2), F ), \quad iR_1 = i_1 \wedge iR_2 = i_2, f' = \text{inv17}(i_2)$

.....

$CR_3 ( r(iR_1, iR_2), f(i_1, i_2), F ), \quad iR_1 = i_1 \wedge \bigwedge_{j=1}^2 iR_2 \neq i_j, f' = \text{inv17}(i_2)$

.....

$CR_2 ( r(iR_1, iR_2), f(i_1, i_2), F ), \quad \bigwedge_{j=1}^2 iR_1 \neq i_j \wedge \bigwedge_{j=1}^2 iR_2 \neq i_j$

moreover{ assume b1 :  $iR_1 = i_1 \wedge iR_2 = i_2$   
have  $CR_3 \dots \text{proof} ( \text{cut\_tac } a1 \ a2 \ b1, \text{simp},$   
 $\text{rule\_tac } x = \text{inv17}(i_2) \text{ in exl, auto } ) \text{qed } \dots \}$

.....

moreover{ assume b1 :  $iR_1 = i_1 \wedge \bigwedge_{j=1}^2 iR_2 \neq i_j$   
have  $CR_3 \dots \text{proof} ( \text{cut\_tac } a1 \ a2 \ b1, \text{simp},$   
 $\text{rule\_tac } x = \text{inv17}(i_2) \text{ in exl, auto } ) \text{qed} \dots \}$

.....

moreover{ assume b1 :  $\bigwedge_{j=1}^2 iR_1 \neq i_j \wedge \bigwedge_{j=1}^2 iR_2 \neq i_j$   
have  $CR_2 \dots \text{proof} ( \text{cut\_tac } a1 \ a2 \ b1, \text{auto} ) \text{qed } \dots \}$