

16

{ $\gamma$ x,  $\gamma$ z}

7,10 RESOLUTION

17

{ $\gamma$ z}

16,14 RESOLUTION

18

{x,  $\gamma$ z}

8,17 RESOLUTION

19

{ $\gamma$ s,  $\gamma$ z}

18,19 RESOLUTION

20

{ $\gamma$ z}

17,19 RES

21

{xz}

18,20 RES

22

{ $\gamma$ yz}

21,15 RES

23

$\perp$

17,22 RES

THE SET HAS A CLOSED EXPANSION  $\Rightarrow$  THE STATEMENT IS CORRECT

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è stata qui

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c)

$$(X \leftrightarrow Y) \rightarrow Z, (X \leftrightarrow Z) \rightarrow Y \models X \rightarrow (Y \leftrightarrow Z)$$

SEMANTICAL

X	Y	Z	$X \leftrightarrow Y$	$F_1$	$X \leftrightarrow Z$	$F_2$	$Y \leftrightarrow Z$	$\varphi$
0	0	0	1	0	1	0	1	1
0	0	1	1	1	0	1	0	1
0	1	0	0	1	1	1	0	1
0	1	1	0	1	0	1	1	1
1	0	0	0	1	0	1	1	1
1	0	1	0	1	1	0	0	0
1	1	0	1	0	0	1	0	0
1	1	1	1	1	1	1	1	1

$v_2, v_3, v_4, v_5$  SATISFY BOTH THE PREMISES AND CONCLUSION. HENCE,

$\models \varphi \checkmark$