

t13_waybel35 (TMZYHtyJugHTTCgxGSvdP- NCo1nBFEmZAxT9)

October 27, 2020

Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v1_waybel_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_waybel35 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.\forall X2.(m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))) \Rightarrow \\ & ((r1_waybel35 X0 X1 X2) \Leftrightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow (\neg(X3 \in X1) \wedge \\ & ((X4 \in X1) \wedge ((k4_tarski X3 X4 \in X2) \wedge ((X3 \neq X4) \wedge (\forall X5.(m1_subset_1 \\ & X5 (u1_struct_0 X0)) \Rightarrow (\neg(X5 \in X1) \wedge ((k4_tarski X3 X5 \in X2) \wedge ((k4_tarski \\ & X5 X4 \in X2) \wedge (X3 \neq X5)))))))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\ & X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r2_orders_2 \\ & X0 X1 X2) \Leftrightarrow ((r1_orders_2 X0 X1 X2) \wedge (X1 \neq X2)))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))) \Rightarrow ((v1_waybel_4 \\ & X1 X0) \Leftrightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow ((k4_tarski X2 X3 \in X1) \Rightarrow (r1_orders_2 \\ & X0 X2 X3)))))) \end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.\forall X2.((v1_waybel_4 \\ & X2 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 \\ & X0) (u1_struct_0 X0)))))) \Rightarrow ((r1_waybel35 X0 X1 X2) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 \\ & (u1_struct_0 X0)) \Rightarrow (\neg(X3 \in X1) \wedge ((X4 \in X1) \wedge ((k4_tarski X3 X4 \in X2) \wedge \\ & ((X3 \neq X4) \wedge (\forall X5.(m1_subset_1 X5 (u1_struct_0 X0)) \Rightarrow (\neg(X5 \in \\ & X1) \wedge ((k4_tarski X3 X5 \in X2) \wedge ((k4_tarski X5 X4 \in X2) \wedge (r2_orders_2 \\ & X0 X3 X5)))))))))))))) \end{aligned}$$