

l137_modelc.2 (TM- bKLA7vMLDnSTZAmHQPUJcmSZmQsAUmNqz)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k30_modelc_1 : \iota \Rightarrow \iota$ be given. Let $k25_modelc_2 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k35_modelc_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. ((v1_funct_1 X3) \wedge \\
& ((v1_funct_2 X3 (k2_zfmisc_1 X0 X1) X2) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (k2_zfmisc_1 X0 X1) X2)))) \Rightarrow (\forall X4. ((v1_funct_1 \\
& X4) \wedge ((v1_funct_2 X4 (k2_zfmisc_1 X0 X1) X2) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\
& (k2_zfmisc_1 (k2_zfmisc_1 X0 X1) X2)))) \Rightarrow ((\forall X5. \forall X6. \\
& ((X5 \in X0) \wedge (X6 \in X1)) \Rightarrow (k1_binop_1 X3 X5 X6 = k1_binop_1 X4 X5 X6)) \Rightarrow \\
& (r2_funct_2 (k2_zfmisc_1 X0 X1) X2 X3 X4)))
\end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
& \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge (\\
& (v1_funct_2 X1 (k2_zfmisc_1 (k30_modelc_1 (k25_modelc_2 X0)) \\
& (k30_modelc_1 (k25_modelc_2 X0))) (k30_modelc_1 (k25_modelc_2 \\
& X0))) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\
& (k30_modelc_1 (k25_modelc_2 X0)) (k30_modelc_1 (k25_modelc_2 \\
& X0))) (k30_modelc_1 (k25_modelc_2 X0)))))) \Rightarrow (\forall X2. ((v1_funct_1 \\
& X2) \wedge ((v1_funct_2 X2 (k2_zfmisc_1 (k30_modelc_1 (k25_modelc_2 \\
& X0)) (k30_modelc_1 (k25_modelc_2 X0))) (k30_modelc_1 (k25_modelc_2 \\
& X0))) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\
& (k30_modelc_1 (k25_modelc_2 X0)) (k30_modelc_1 (k25_modelc_2 \\
& X0))) (k30_modelc_1 (k25_modelc_2 X0)))))) \Rightarrow (((\forall X3. \forall X4. \\
& ((X3 \in k30_modelc_1 (k25_modelc_2 X0)) \wedge (X4 \in k30_modelc_1 (k25_modelc_2 \\
& X0))) \Rightarrow (k1_binop_1 X1 X3 X4 = k35_modelc_2 X0 X3 X4)) \wedge (\forall X3. \\
& \forall X4. ((X3 \in k30_modelc_1 (k25_modelc_2 X0)) \wedge (X4 \in k30_modelc_1 \\
& (k25_modelc_2 X0))) \Rightarrow (k1_binop_1 X2 X3 X4 = k35_modelc_2 X0 X3 X4))) \Rightarrow \\
& (r2_funct_2 (k2_zfmisc_1 (k30_modelc_1 (k25_modelc_2 X0)) (k30_modelc_1 \\
& (k25_modelc_2 X0))) (k30_modelc_1 (k25_modelc_2 X0)) X1 X2)))
\end{aligned}$$