

t55_bvfunc14 (TMR-
Bqa9w3UToHN6w8gm9c1Y8WRDrKy9p1PC)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_bvfunc_2 : \iota \Rightarrow \iota$ be given. Let $m1_eqrel_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_bvfunc_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_partit1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\
& \quad (k1_bvfunc_2 X0))) \Rightarrow (\forall X2.(m1_eqrel_1 X2 X0) \Rightarrow (\forall X3. \\
& \quad (m1_eqrel_1 X3 X0) \Rightarrow (\forall X4.(m1_eqrel_1 X4 X0) \Rightarrow (\forall X5. \\
& \quad (m1_eqrel_1 X5 X0) \Rightarrow (\forall X6.(m1_eqrel_1 X6 X0) \Rightarrow (\forall X7. \\
& \quad (m1_eqrel_1 X7 X0) \Rightarrow (\forall X8.(m1_eqrel_1 X8 X0) \Rightarrow (\forall X9. \\
& \quad (m1_eqrel_1 X9 X0) \Rightarrow ((X1 = k6_enumset1 X2 X3 X4 X5 X6 X7 X8 X9) \Rightarrow ((X2 = \\
& \quad X3) \vee ((X2 = X4) \vee ((X2 = X5) \vee ((X2 = X6) \vee ((X2 = X7) \vee ((X2 = X8) \vee ((X2 = X9) \vee \\
& \quad ((X3 = X4) \vee ((X3 = X5) \vee ((X3 = X6) \vee ((X3 = X7) \vee ((X3 = X8) \vee ((X3 = X9) \vee \\
& \quad (X4 = X5) \vee ((X4 = X6) \vee ((X4 = X7) \vee ((X4 = X8) \vee ((X4 = X9) \vee ((X5 = X6) \vee ((\\
& \quad X5 = X7) \vee ((X5 = X8) \vee ((X5 = X9) \vee ((X6 = X7) \vee ((X6 = X8) \vee ((X6 = X9) \vee ((X7 = \\
& \quad X8) \vee ((X7 = X9) \vee ((X8 = X9) \vee (k5_bvfunc_2 X0 X2 X1 = k2_partit1 X0 (k2_partit1 \\
& \quad X0 (k2_partit1 X0 (k2_partit1 X0 (k2_partit1 X0 (k2_partit1 X0 X3 \\
& \quad X4) X5) X6) X7) X8) X9)))))))))))))))))))))))))))))))))))))) \\
& \hspace{15em} (1)
\end{aligned}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\
& \forall X6. \forall X7. k6_enumset1 X0 X1 X2 X3 X4 X5 X6 X7 = k2_xboole_0 \quad (2) \\
& \quad (k2_tarski X0 X1) (k4_enumset1 X2 X3 X4 X5 X6 X7)
\end{aligned}$$

Assume the following.

$$\forall X0. \forall X1. k2_tarski X0 X1 = k2_tarski X1 X0 \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & \quad (k1_bvfunc_2 X0))) \Rightarrow (\forall X2.(m1_eqrel_1 X2 X0) \Rightarrow (\forall X3. \\ & \quad (m1_eqrel_1 X3 X0) \Rightarrow (\forall X4.(m1_eqrel_1 X4 X0) \Rightarrow (\forall X5. \\ & \quad (m1_eqrel_1 X5 X0) \Rightarrow (\forall X6.(m1_eqrel_1 X6 X0) \Rightarrow (\forall X7. \\ & \quad (m1_eqrel_1 X7 X0) \Rightarrow (\forall X8.(m1_eqrel_1 X8 X0) \Rightarrow (\forall X9. \\ & (m1_eqrel_1 X9 X0) \Rightarrow ((X1 = k6_enumset1 X2 X3 X4 X5 X6 X7 X8 X9) \Rightarrow ((X2 = \\ & X3) \vee ((X2 = X4) \vee ((X2 = X5) \vee ((X2 = X6) \vee ((X2 = X7) \vee ((X2 = X8) \vee ((X2 = X9) \vee \\ & ((X3 = X4) \vee ((X3 = X5) \vee ((X3 = X6) \vee ((X3 = X7) \vee ((X3 = X8) \vee ((X3 = X9) \vee (\\ & (X4 = X5) \vee ((X4 = X6) \vee ((X4 = X7) \vee ((X4 = X8) \vee ((X4 = X9) \vee ((X5 = X6) \vee (\\ & X5 = X7) \vee ((X5 = X8) \vee ((X5 = X9) \vee ((X6 = X7) \vee ((X6 = X8) \vee ((X6 = X9) \vee ((X7 = \\ & X8) \vee ((X7 = X9) \vee ((X8 = X9) \vee (k5_bvfunc_2 X0 X3 X1 = k2_partit1 X0 (k2_partit1 \\ & X0 (k2_partit1 X0 (k2_partit1 X0 (k2_partit1 X0 (k2_partit1 X0 X2 \\ & X4) X5) X6) X7) X8) X9)) \end{aligned}$$