

t70_bvfunc14 (TMPyPKeeBR- CApHmWs2RV6gDQFPEKuQe9zUs)

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 $k7_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_bvfunc_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k5_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & \forall X6.\forall X7.\forall X8.k7_enumset1\ X0\ X1\ X2\ X3\ X4\ X5\ X6 \\ X7\ X8 = k2_xboole_0\ (k2_tarski\ X0\ X1)\ (k5_enumset1\ X2\ X3\ X4\ X5\ X6\ X7 \\ & \quad X8) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ & \quad (k1_bvfunc_2\ X0))) \Rightarrow (\forall X2.(m1_eqrel_1\ X2\ X0) \Rightarrow (\forall X3. \\ & \quad (m1_eqrel_1\ X3\ X0) \Rightarrow (\forall X4.(m1_eqrel_1\ X4\ X0) \Rightarrow (\forall X5. \\ & \quad (m1_eqrel_1\ X5\ X0) \Rightarrow (\forall X6.(m1_eqrel_1\ X6\ X0) \Rightarrow (\forall X7. \\ & \quad (m1_eqrel_1\ X7\ X0) \Rightarrow (\forall X8.(m1_eqrel_1\ X8\ X0) \Rightarrow (\forall X9. \\ & \quad (m1_eqrel_1\ X9\ X0) \Rightarrow (\forall X10.(m1_eqrel_1\ X10\ X0) \Rightarrow ((X1 = k7_enumset1 \\ & \quad X2\ X3\ X4\ X5\ X6\ X7\ X8\ X9\ X10) \Rightarrow ((X2 = X3) \vee ((X2 = X4) \vee ((X2 = X5) \vee ((X2 = X6) \vee \\ & \quad ((X2 = X7) \vee ((X2 = X8) \vee ((X2 = X9) \vee ((X2 = X10) \vee ((X3 = X4) \vee ((X3 = X5) \vee \\ & \quad ((X3 = X6) \vee ((X3 = X7) \vee ((X3 = X8) \vee ((X3 = X9) \vee ((X3 = X10) \vee ((X4 = X5) \vee \\ & \quad ((X4 = X6) \vee ((X4 = X7) \vee ((X4 = X8) \vee ((X4 = X9) \vee ((X4 = X10) \vee ((X5 = X6) \vee \\ & \quad ((X5 = X7) \vee ((X5 = X8) \vee ((X5 = X9) \vee ((X5 = X10) \vee ((X6 = X7) \vee ((X6 = X8) \vee \\ & \quad ((X6 = X9) \vee ((X6 = X10) \vee ((X7 = X8) \vee ((X7 = X9) \vee ((X7 = X10) \vee ((X8 = X9) \vee \\ & \quad ((X8 = X10) \vee ((X9 = X10) \vee (k5_bvfunc_2\ X0\ X4\ X1 = k2_partit1\ X0\ (k2_partit1 \\ & \quad X0\ (k2_partit1\ X0\ (k2_partit1\ X0\ (k2_partit1\ X0\ (k2_partit1\ X0\ (\\ & \quad k2_partit1\ X0\ X2\ X3)\ X5)\ X6)\ X7)\ X8)\ X9)\ X10))))))))))))))))))))))))))))))))))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & \forall X6.k5_enumset1\ X0\ X1\ X2\ X3\ X4\ X5\ X6 = k2_xboole_0\ (k2_tarSKI \\ & \quad X0\ X1)\ (k3_enumset1\ X2\ X3\ X4\ X5\ X6) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.k2_tarSKI\ X0\ X1 = k2_tarSKI\ X1\ X0 \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ & \quad (k1_bfunc_2\ X0))) \Rightarrow (\forall X2.(m1_eqrel_1\ X2\ X0) \Rightarrow (\forall X3. \\ & \quad (m1_eqrel_1\ X3\ X0) \Rightarrow (\forall X4.(m1_eqrel_1\ X4\ X0) \Rightarrow (\forall X5. \\ & \quad (m1_eqrel_1\ X5\ X0) \Rightarrow (\forall X6.(m1_eqrel_1\ X6\ X0) \Rightarrow (\forall X7. \\ & \quad (m1_eqrel_1\ X7\ X0) \Rightarrow (\forall X8.(m1_eqrel_1\ X8\ X0) \Rightarrow (\forall X9. \\ & \quad (m1_eqrel_1\ X9\ X0) \Rightarrow (\forall X10.(m1_eqrel_1\ X10\ X0) \Rightarrow ((X1 = k7_enumset1 \\ & \quad X2\ X3\ X4\ X5\ X6\ X7\ X8\ X9\ X10) \Rightarrow ((X2 = X3) \vee ((X2 = X4) \vee ((X2 = X5) \vee ((X2 = X6) \vee \\ & \quad ((X2 = X7) \vee ((X2 = X8) \vee ((X2 = X9) \vee ((X2 = X10) \vee ((X3 = X4) \vee ((X3 = X5) \vee \\ & \quad ((X3 = X6) \vee ((X3 = X7) \vee ((X3 = X8) \vee ((X3 = X9) \vee ((X3 = X10) \vee ((X4 = X5) \vee \\ & \quad ((X4 = X6) \vee ((X4 = X7) \vee ((X4 = X8) \vee ((X4 = X9) \vee ((X4 = X10) \vee ((X5 = X6) \vee \\ & \quad ((X5 = X7) \vee ((X5 = X8) \vee ((X5 = X9) \vee ((X5 = X10) \vee ((X6 = X7) \vee ((X6 = X8) \vee \\ & \quad ((X6 = X9) \vee ((X6 = X10) \vee ((X7 = X8) \vee ((X7 = X9) \vee ((X7 = X10) \vee ((X8 = X9) \vee \\ & \quad ((X8 = X10) \vee ((X9 = X10) \vee (k5_bfunc_2\ X0\ X5\ X1 = k2_partit1\ X0\ (k2_partit1 \\ & \quad X0\ (k2_partit1\ X0\ (k2_partit1\ X0\ (k2_partit1\ X0\ (k2_partit1\ X0\ (\\ & \quad k2_partit1\ X0\ X2\ X3)\ X4)\ X6)\ X7)\ X8)\ X9)\ X10))) \end{aligned}$$