

t47_bvfunc14

(TMYwsvwdyfxSytKDjAvtyccRyjrAgeJdiCK)

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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 $k5_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_bvfunc_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_partit1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. k1_enumset1 X0 X1 X2 = k1_enumset1 X1 X0 X2 \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ (k1_bvfunc_2 X0))) \Rightarrow (\forall X2. (m1_eqrel_1 X2 X0) \Rightarrow (\forall X3. \\ (m1_eqrel_1 X3 X0) \Rightarrow (\forall X4. (m1_eqrel_1 X4 X0) \Rightarrow (\forall X5. \\ (m1_eqrel_1 X5 X0) \Rightarrow (\forall X6. (m1_eqrel_1 X6 X0) \Rightarrow (\forall X7. \\ (m1_eqrel_1 X7 X0) \Rightarrow (\forall X8. (m1_eqrel_1 X8 X0) \Rightarrow ((X1 = k5_enumset1 \\ X2 X3 X4 X5 X6 X7 X8) \Rightarrow ((X2 = X3) \vee ((X2 = X4) \vee ((X2 = X5) \vee ((X2 = X6) \vee ((X2 = \\ X7) \vee ((X2 = X8) \vee ((X3 = X4) \vee ((X3 = X5) \vee ((X3 = X6) \vee ((X3 = X7) \vee ((X3 = X8) \vee \\ ((X4 = X5) \vee ((X4 = X6) \vee ((X4 = X7) \vee ((X4 = X8) \vee ((X5 = X6) \vee ((X5 = X7) \vee (\\ (X5 = X8) \vee ((X6 = X7) \vee ((X6 = X8) \vee ((X7 = X8) \vee (k5_bvfunc_2 X0 X6 X1 = k2_partit1 \\ X0 (k2_partit1 X0 (k2_partit1 X0 (k2_partit1 X0 (k2_partit1 X0 X2 \\ X3) X4) X5) X7) X8)))))))))))))))))))))))))))))))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ \forall X6. k5_enumset1 X0 X1 X2 X3 X4 X5 X6 = k2_xboole_0 (k2_enumset1 \\ X0 X1 X2 X3) (k1_enumset1 X4 X5 X6) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & \quad (k1_bfunc_2 X0))) \Rightarrow (\forall X2.(m1_eqrel_1 X2 X0) \Rightarrow (\forall X3. \\ & \quad (m1_eqrel_1 X3 X0) \Rightarrow (\forall X4.(m1_eqrel_1 X4 X0) \Rightarrow (\forall X5. \\ & \quad (m1_eqrel_1 X5 X0) \Rightarrow (\forall X6.(m1_eqrel_1 X6 X0) \Rightarrow (\forall X7. \\ & \quad (m1_eqrel_1 X7 X0) \Rightarrow (\forall X8.(m1_eqrel_1 X8 X0) \Rightarrow ((X1 = k5_enumset1 \\ & X2 X3 X4 X5 X6 X7 X8) \Rightarrow ((X2 = X3) \vee ((X2 = X4) \vee ((X2 = X5) \vee ((X2 = X6) \vee ((X2 = \\ & X7) \vee ((X2 = X8) \vee ((X3 = X4) \vee ((X3 = X5) \vee ((X3 = X6) \vee ((X3 = X7) \vee ((X3 = X8) \vee \\ & ((X4 = X5) \vee ((X4 = X6) \vee ((X4 = X7) \vee ((X4 = X8) \vee ((X5 = X6) \vee ((X5 = X7) \vee (\\ & (X5 = X8) \vee ((X6 = X7) \vee ((X6 = X8) \vee ((X7 = X8) \vee (k5_bfunc_2 X0 X7 X1 = k2_partit1 \\ & X0 (k2_partit1 X0 (k2_partit1 X0 (k2_partit1 X0 (k2_partit1 X0 X2 \\ & X3) X4) X5) X6) X8)) \end{aligned}$$