

t10_bvfunc14 (TM-
bRK8rRmUrSXBV52Mq5oVjM3ihQSmZ2cbP)

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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 $k2_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ & \quad (k1_bvfunc_2 X0))) \Rightarrow (\forall X2. (m1_eqrel_1 X2 X0) \Rightarrow (\forall X3. \\ & \quad (m1_eqrel_1 X3 X0) \Rightarrow (\forall X4. (m1_eqrel_1 X4 X0) \Rightarrow (\forall X5. \\ & (m1_eqrel_1 X5 X0) \Rightarrow ((X1 = k2_enumset1 X2 X3 X4 X5) \Rightarrow ((X2 = X3) \vee ((X2 = \\ & \quad X4) \vee ((X2 = X5) \vee (k5_bvfunc_2 X0 X2 X1 = k2_partit1 X0 (k2_partit1 \\ & \quad X0 X3 X4) X5)))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. k2_enumset1 X0 X1 \\ & \quad X2 X3 = k2_enumset1 X1 X3 X2 X0 \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ & \quad (k1_bvfunc_2 X0))) \Rightarrow (\forall X2. (m1_eqrel_1 X2 X0) \Rightarrow (\forall X3. \\ & \quad (m1_eqrel_1 X3 X0) \Rightarrow (\forall X4. (m1_eqrel_1 X4 X0) \Rightarrow (\forall X5. \\ & (m1_eqrel_1 X5 X0) \Rightarrow ((X1 = k2_enumset1 X2 X3 X4 X5) \Rightarrow ((X2 = X5) \vee ((X3 = \\ & \quad X5) \vee ((X4 = X5) \vee (k5_bvfunc_2 X0 X5 X1 = k2_partit1 X0 (k2_partit1 \\ & \quad X0 X2 X4) X3)))))))))) \end{aligned}$$