t72_bvfunc14 (TMTvNZkKKu4P6DvMAL54LzoLfeicSQnPxJZ)

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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 $k7\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_bvfunc\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_partit1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. \forall X4. k3\_enumset1\ X0\ X1\ X2\ X3\ X4 = k2\_xboole\_0\ (k2\_tarski\ X0\ X1)\ (k1\_enumset1\ X2\ X3\ X4) \tag{1}$$

Assume the following.

$$\begin{gathered}\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1 \\ (k1\_bvfunc\_2\ X0))) \Rightarrow (\forall X2.(m1\_eqrel\_1\ X2\ X0) \Rightarrow (\forall X3. \\ (m1\_eqrel\_1\ X3\ X0) \Rightarrow (\forall X4.(m1\_eqrel\_1\ X4\ X0) \Rightarrow (\forall X5. \\ (m1\_eqrel\_1\ X5\ X0) \Rightarrow (\forall X6.(m1\_eqrel\_1\ X6\ X0) \Rightarrow (\forall X7. \\ (m1\_eqrel\_1\ X7\ X0) \Rightarrow (\forall X8.(m1\_eqrel\_1\ X8\ X0) \Rightarrow (\forall X9. \\ (m1\_eqrel\_1\ X9\ X0) \Rightarrow (\forall X10.(m1\_eqrel\_1\ X10\ X0) \Rightarrow ((X1 = k7\_enumset1 \\ X2\ X3\ X4\ X5\ X6\ X7\ X8\ X9\ X10) \Rightarrow ((X2 = X3) \vee ((X2 = X4) \vee ((X2 = X5) \vee ((X2 = X6) \vee \\ ((X2 = X7) \vee ((X2 = X8) \vee ((X2 = X9) \vee ((X2 = X10) \vee ((X3 = X4) \vee ((X3 = X5) \vee \\ ((X3 = X6) \vee ((X3 = X7) \vee ((X3 = X8) \vee ((X3 = X9) \vee ((X3 = X10) \vee ((X4 = X5) \vee \\ ((X4 = X6) \vee ((X4 = X7) \vee ((X4 = X8) \vee ((X4 = X9) \vee ((X4 = X10) \vee ((X5 = X6) \vee \\ ((X5 = X7) \vee ((X5 = X8) \vee ((X5 = X9) \vee ((X5 = X10) \vee ((X6 = X7) \vee ((X6 = X8) \vee \\ ((X6 = X9) \vee ((X6 = X10) \vee ((X7 = X8) \vee ((X7 = X9) \vee ((X7 = X10) \vee ((X8 = X9) \vee \\ ((X8 = X10) \vee ((X9 = X10) \vee (k5\_bvfunc\_2\ X0\ X6\ X1 = k2\_partit1\ X0\ (k2\_partit1 \\ X0\ (k2\_partit1\ X0\ (k2\_partit1\ X0\ (k2\_partit1\ X0\ (k2\_partit1\ X0\ (\\ k2\_partit1\ X0\ X2\ X3)\ X4)\ X5)\ X7)\ X8)\ X9)\ X10))\end{gathered} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\forall X6.\forall X7.\forall X8.k7\_enumset1\ X0\ X1\ X2\ X3\ X4\ X5\ X6\ X7\ X8 = k2\_xboole\_0\ (k2\_enumset1\ X0\ X1\ X2\ X3)\ (k3\_enumset1\ X4\ X5\ X6\ X7\ X8) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.k2\_tarski\ X0\ X1 = k2\_tarski\ X1\ X0 \quad (4)$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_bvfunc\_2\ X0))) \Rightarrow (\forall X2.(m1\_eqrel\_1\ X2\ X0) \Rightarrow (\forall X3.(m1\_eqrel\_1\ X3\ X0) \Rightarrow (\forall X4.(m1\_eqrel\_1\ X4\ X0) \Rightarrow (\forall X5.(m1\_eqrel\_1\ X5\ X0) \Rightarrow (\forall X6.(m1\_eqrel\_1\ X6\ X0) \Rightarrow (\forall X7.(m1\_eqrel\_1\ X7\ X0) \Rightarrow (\forall X8.(m1\_eqrel\_1\ X8\ X0) \Rightarrow (\forall X9.(m1\_eqrel\_1\ X9\ X0) \Rightarrow (\forall X10.(m1\_eqrel\_1\ X10\ X0) \Rightarrow ((X1 = k7\_enumset1\ X2\ X3\ X4\ X5\ X6\ X7\ X8\ X9\ X10) \Rightarrow ((X2 = X3) \vee ((X2 = X4) \vee ((X2 = X5) \vee ((X2 = X6) \vee ((X2 = X7) \vee ((X2 = X8) \vee ((X2 = X9) \vee ((X2 = X10) \vee ((X3 = X4) \vee ((X3 = X5) \vee ((X3 = X6) \vee ((X3 = X7) \vee ((X3 = X8) \vee ((X3 = X9) \vee ((X3 = X10) \vee ((X4 = X5) \vee ((X4 = X6) \vee ((X4 = X7) \vee ((X4 = X8) \vee ((X4 = X9) \vee ((X4 = X10) \vee ((X5 = X6) \vee ((X5 = X7) \vee ((X5 = X8) \vee ((X5 = X9) \vee ((X5 = X10) \vee ((X6 = X7) \vee ((X6 = X8) \vee ((X6 = X9) \vee ((X6 = X10) \vee ((X7 = X8) \vee ((X7 = X9) \vee ((X7 = X10) \vee ((X8 = X9) \vee ((X8 = X10) \vee ((X9 = X10) \vee (k5\_bvfunc\_2\ X0\ X7\ X1 = k2\_partit1\ X0\ (k2\_partit1\ X0\ (k2\_partit1\ X0\ (k2\_partit1\ X0\ (k2\_partit1\ X0\ (k2\_partit1\ X0\ (k2\_partit1\ X0\ X2\ X3)\ X4)\ X5)\ X6)\ X8)\ X9)\ X10))$$