t45_bvfunc14 (TMFuxpsYH31KrXyJW6aEUe9h9uahe3eS7n1)

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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 $k5\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_bvfunc\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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. 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.

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

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\forall X6.k5\_enumset1\ X0\ X1\ X2\ X3\ X4\ X5\ X6 = k2\_xboole\_0\ (k2\_tarski\ X0\ X1)\ (k3\_enumset1\ X2\ X3\ X4\ X5\ X6) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.k2\_tarski\ X0\ X1 = k2\_tarski\ X1\ X0 \tag{4}$$

Theorem 1

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