# t14_partit_2 (TMXvPx67QBjjq8mqRGE1C8zBCgkWJLZvwGs)

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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 $v2\_bvfunc\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_partit1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_bvfunc\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_eqrel\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_relat\_2 : \iota \Rightarrow o$ be given. Let $v8\_relat\_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))\Rightarrow(r2\_relset\_1\ X0\ X1\ X2\ X2) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow((r1\_relset\_1\ X0\ X1\ X2\ X3)\Leftrightarrow(r1\_tarski\ X2\ X3)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.((m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\wedge(m1\_subset\_1\ X5\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X2\ X3))))\Rightarrow(k4\_relset\_1\ X0\ X1\ X2\ X3\ X4\ X5 = k3\_relat\_1\ X4\ X5) \tag{3}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_bvfunc\_2\ X0)))\Rightarrow((v2\_bvfunc\_2\ X1\ X0)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_bvfunc\_2\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k1\_bvfunc\_2\ X0)))\Rightarrow(((r1\_tarski\ X2\ X1)\wedge(r1\_tarski\ X3\ X1))\Rightarrow(r1\_relset\_1\ X0\ X0\ (k4\_relset\_1\ X0\ X0\ X0\ X0\ (k4\_partit1\ X0\ (k2\_bvfunc\_2\ X0\ X2))\ (k4\_partit1\ X0\ (k2\_bvfunc\_2\ X0\ X3)))\ (k4\_relset\_1\ X0\ X0\ X0\ X0\ (k4\_partit1\ X0\ (k2\_bvfunc\_2\ X0\ X3))\ (k4\_partit1\ X0\ (k2\_bvfunc\_2\ X0\ X2))))))))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\ ((m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\wedge(m1\_subset\_1\ X5\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X2\ X3))))\Rightarrow(m1\_subset\_1\ (k4\_relset\_1\ X0\ X1\ X2\ X3\ X4\ X5)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X3))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge(m1\_eqrel\_1\ X1\ X0))\Rightarrow((v1\_partfun1\ (k4\_partit1\ X0\ X1)\ X0)\wedge((v3\_relat\_2\ (k4\_partit1\ X0\ X1))\wedge((v8\_relat\_2\ (k4\_partit1\ X0\ X1))\wedge(m1\_subset\_1\ (k4\_partit1\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)))))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_bvfunc\_2\ X0))))\Rightarrow(m1\_eqrel\_1\ (k2\_bvfunc\_2\ X0\ X1)\ X0) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1)\Leftrightarrow((r1\_tarski\ X0\ X1)\wedge(r1\_tarski\ X1\ X0)) \tag{8}$$

**Theorem 1**

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_bvfunc\_2\ X0)))\Rightarrow((v2\_bvfunc\_2\ X1\ X0)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k1\_bvfunc\_2\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k1\_bvfunc\_2\ X0)))\Rightarrow(((r1\_tarski\ X2\ X1)\wedge(r1\_tarski\ X3\ X1))\Rightarrow(r2\_relset\_1\ X0\ X0\ (k4\_relset\_1\ X0\ X0\ X0\ X0\ (k4\_partit1\ X0\ (k2\_bvfunc\_2\ X0\ X2))\ (k4\_partit1\ X0\ (k2\_bvfunc\_2\ X0\ X3)))\ (k4\_relset\_1\ X0\ X0\ X0\ X0\ (k4\_partit1\ X0\ (k2\_bvfunc\_2\ X0\ X3))\ (k4\_partit1\ X0\ (k2\_bvfunc\_2\ X0\ X2)))))))))$$