# t15_bspace (TMchhyce1FEuqg2Fw8fs83txyGud2PgoU2A)

October 27, 2020

Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k3\_bspace : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_bspace : \iota$ be given. Let $k5\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v13\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v3\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $l2\_algstr\_0 : \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $l1\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l6\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l5\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v6\_struct\_0 : \iota \Rightarrow o$ be given. Let $v33\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v3\_group\_1 : \iota \Rightarrow o$ be given. Let $v5\_group\_1 : \iota \Rightarrow o$ be given. Let $v4\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $v5\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$k3\_rlvect\_1\ k2\_bspace\ (k5\_struct\_0\ k2\_bspace)\ (k5\_struct\_0\ k2\_bspace) = k4\_struct\_0\ k2\_bspace \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge (l2\_algstr\_0\ X0))))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow ((k1\_algstr\_0\ X0\ X1\ (k4\_struct\_0\ X0) = X1) \wedge (k1\_algstr\_0\ X0\ (k4\_struct\_0\ X0)\ X1 = X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X0 \in k5\_xboole\_0\ X1\ X2) \Leftrightarrow (\neg(X0 \in X1) \Leftrightarrow (X0 \in X2)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0))) \Rightarrow (k5\_subset\_1\ X0\ X1\ X2 = k5\_xboole\_0\ X1\ X2) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v2\_rlvect\_1\ X0)\wedge(l1\_algstr\_0\ X0))\wedge((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))))\Rightarrow(k3\_rlvect\_1\ X0\ X1\ X2 = k1\_algstr\_0\ X0\ X1\ X2) \tag{5}$$

Assume the following.

$$\forall X0.(l6\_algstr\_0\ X0)\Rightarrow((l2\_algstr\_0\ X0)\wedge(l5\_algstr\_0\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.(l2\_algstr\_0\ X0)\Rightarrow((l2\_struct\_0\ X0)\wedge(l1\_algstr\_0\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.(l2\_struct\_0\ X0)\Rightarrow(m1\_subset\_1\ (k4\_struct\_0\ X0)\ (u1\_struct\_0\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.m1\_subset\_1\ (k3\_bspace\ X0\ X1)\ (u1\_struct\_0\ k2\_bspace) \tag{9}$$

Assume the following.

$$(\neg v2\_struct\_0\ k2\_bspace)\wedge((\neg v6\_struct\_0\ k2\_bspace)\wedge((v13\_algstr\_0\ k2\_bspace)\wedge((v33\_algstr\_0\ k2\_bspace)\wedge((v3\_group\_1\ k2\_bspace)\wedge((v5\_group\_1\ k2\_bspace)\wedge((v4\_vectsp\_1\ k2\_bspace)\wedge((v5\_vectsp\_1\ k2\_bspace)\wedge((v2\_rlvect\_1\ k2\_bspace)\wedge((v3\_rlvect\_1\ k2\_bspace)\wedge((v4\_rlvect\_1\ k2\_bspace)\wedge(l6\_algstr\_0\ k2\_bspace))))))))))) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.k5\_xboole\_0\ X0\ X1 = k2\_xboole\_0\ (k4\_xboole\_0\ X0\ X1)\ (k4\_xboole\_0\ X1\ X0) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.((X1 \in X0)\Rightarrow(k3\_bspace\ X0\ X1 = k5\_struct\_0\ k2\_bspace))\wedge((\neg X1 \in X0)\Rightarrow(k3\_bspace\ X0\ X1 = k4\_struct\_0\ k2\_bspace)) \tag{12}$$

**Theorem 1**

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ X0)\Rightarrow(k3\_bspace\ (k5\_subset\_1\ X0\ X1\ X2)\ X3 = k3\_rlvect\_1\ k2\_bspace\ (k3\_bspace\ X1\ X3)\ (k3\_bspace\ X2\ X3))))$$