t3_bcialg_6 (TMZpfxLLJYWPbLMcKAi-WSLysNZtefCkryUo)

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Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v3\_bcialg\_1 : \iota \Rightarrow o$ be given. Let $v4\_bcialg\_1 : \iota \Rightarrow o$ be given. Let $v5\_bcialg\_1 : \iota \Rightarrow o$ be given. Let $v7\_bcialg\_1 : \iota \Rightarrow o$ be given. Let $l2\_bcialg\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k3\_bcialg\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_binop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_binop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $l2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_bcialg\_1 : \iota \Rightarrow o$ be given. Let $k2\_bcialg\_6 : \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k23\_binop\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_1 : \iota$ be given. Let $k1\_bcialg\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_bcialg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$m1\_subset\_1\ k1\_xboole\_0\ k4\_ordinal1 \tag{1}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{2}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\ ((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ (k2\_zfmisc\_1\ X0\ X1)\ X2) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)\ X2))))) \wedge ((m1\_subset\_1\ X4\ X0) \wedge (m1\_subset\_1\ X5\ X1))))) \Rightarrow (k2\_binop\_1\ X0\ X1\ X2\ X3\ X4\ X5 = k1\_binop\_1\ X3\ X4\ X5) \tag{4}$$

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1)\wedge(v3\_ordinal1\ k4\_ordinal1) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_struct\_0\ X0))\Rightarrow(\neg v1\_xboole\_0\ (u1\_struct\_0\ X0)) \tag{6}$$

Assume the following.

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

Assume the following.

$$\forall X0.(l2\_bcialg\_1\ X0)\Rightarrow((l1\_bcialg\_1\ X0)\wedge(l2\_struct\_0\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l2\_bcialg\_1\ X0))\Rightarrow((v1\_funct\_1\ (k2\_bcialg\_6\ X0))\wedge((v1\_funct\_2\ (k2\_bcialg\_6\ X0)\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ k5\_numbers)\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ (k2\_bcialg\_6\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ k5\_numbers)\ (u1\_struct\_0\ X0)))))) \tag{9}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_bcialg\_1\ X0)\wedge((v4\_bcialg\_1\ X0)\wedge((v5\_bcialg\_1\ X0)\wedge((v7\_bcialg\_1\ X0)\wedge(l2\_bcialg\_1\ X0))))))\Rightarrow(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(k3\_bcialg\_6\ X0\ X1\ X2 = k1\_binop\_1\ (k2\_bcialg\_6\ X0)\ X2\ X1))) \tag{10}$$

Assume the following.

$$k1\_xboole\_0 = the\ (\lambda X0 : \iota.v1\_xboole\_0\ X0) \tag{11}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l2\_bcialg\_1\ X0))\Rightarrow(\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ k5\_numbers)\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ k5\_numbers)\ (u1\_struct\_0\ X0))))))\Rightarrow((X1 = k2\_bcialg\_6\ X0)\Leftrightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow((k2\_binop\_1\ (u1\_struct\_0\ X0)\ k5\_numbers\ (u1\_struct\_0\ X0)\ X1\ X2\ k6\_numbers = k4\_struct\_0\ X0)\wedge(\forall X3.(m1\_subset\_1\ X3\ k5\_numbers)\Rightarrow(k2\_binop\_1\ (u1\_struct\_0\ X0)\ k5\_numbers\ (u1\_struct\_0\ X0)\ X1\ X2\ (k23\_binop\_2\ X3\ np\_\_1) = k1\_bcialg\_1\ X0\ X2\ (k2\_bcialg\_1\ X0\ (k2\_binop\_1\ (u1\_struct\_0\ X0)\ k5\_numbers\ (u1\_struct\_0\ X0)\ X1\ X2\ X3)))))))) \tag{12}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{13}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_bcialg\_1\ X0)\wedge((v4\_bcialg\_1\ X0)\wedge((v5\_bcialg\_1\ X0)\wedge((v7\_bcialg\_1\ X0)\wedge(l2\_bcialg\_1\ X0))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(k3\_bcialg\_6\ X0\ k6\_numbers\ X1 = k4\_struct\_0\ X0))$$