# t9_diff_3 (TMZACk-MZo53cwbqEnXWoBUoZXQSYU5QQ1Qd)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $k1\_numbers : \iota$ 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 $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_seqfunc : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_diff\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k26\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k7\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v3\_membered : \iota \Rightarrow o$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k24\_valued\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers) \Rightarrow (\forall X1.\ (m1\_subset\_1\ X1\ k1\_numbers) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k1\_numbers) \Rightarrow (\forall X3.((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ k1\_numbers\ k1\_numbers) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers))))) \Rightarrow (\forall X4.((v1\_funct\_1\ X4) \wedge ((v1\_funct\_2\ X4\ k1\_numbers\ k1\_numbers) \wedge (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers))))) \Rightarrow (k1\_seq\_1\ (k1\_seqfunc\ k1\_numbers\ k1\_numbers\ (k7\_diff\_1\ (k3\_valued\_1\ k1\_numbers\ k1\_numbers\ k1\_numbers\ X3\ X4)\ X1)\ (k2\_nat\_1\ X0\ np\_\_1))\ X2 = k7\_real\_1\ (k1\_seq\_1\ (k1\_seqfunc\ k1\_numbers\ k1\_numbers\ (k7\_diff\_1\ X3\ X1)\ (k2\_nat\_1\ X0\ np\_\_1))\ X2)\ (k1\_seq\_1\ (k1\_seqfunc\ k1\_numbers\ k1\_numbers\ (k7\_diff\_1\ X4\ X1)\ (k2\_nat\_1\ X0\ np\_\_1))\ X2)))))) \tag{1}$$

Assume the following.

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k1\_numbers)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ k1\_numbers)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ k1\_numbers)\Rightarrow(\forall X4.((v1\_funct\_1\ X4)\wedge((v1\_funct\_2\ X4\ k1\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))))\Rightarrow(k1\_seq\_1\ (k1\_seqfunc\ k1\_numbers\ k1\_numbers\ (k7\_diff\_1\ (k26\_valued\_1\ k1\_numbers\ k1\_numbers\ X4\ X1)\ X2)\ (k2\_nat\_1\ X0\ np\_\_1))\ X3 = k8\_real\_1\ X1\ (k1\_seq\_1\ (k1\_seqfunc\ k1\_numbers\ k1\_numbers\ (k7\_diff\_1\ X4\ X2)\ (k2\_nat\_1\ X0\ np\_\_1))\ X3)))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ X0\ X1)\Leftrightarrow(m1\_subset\_1\ X2\ X1)) \tag{3}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v3\_membered\ X1)\wedge(((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))\wedge(v1\_xreal\_0\ X3)))\Rightarrow(k26\_valued\_1\ X0\ X1\ X2\ X3 = k24\_valued\_1\ X2\ X3) \tag{5}$$

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1)\wedge(v3\_ordinal1\ k4\_ordinal1) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1\_xboole\_0\ X1)\wedge(v3\_membered\ X1))\wedge(((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ X0\ X1)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))\wedge(v1\_xreal\_0\ X3)))\Rightarrow((v1\_funct\_1\ (k24\_valued\_1\ X2\ X3))\wedge(v1\_partfun1\ (k24\_valued\_1\ X2\ X3)\ X0)) \tag{7}$$

Assume the following.

$$v3\_membered\ k1\_numbers \tag{8}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{9}$$

Assume the following.

$$m1\_subset\_1\ k5\_numbers\ (k1\_zfmisc\_1\ k1\_numbers) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v3\_membered\ X1)\wedge (((v1\_funct\_1\ X2)\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))\wedge(v1\_xreal\_0\ X3)))\Rightarrow((v1\_funct\_1\ (k26\_valued\_1\ X0\ X1\ X2\ X3))\wedge(m1\_subset\_1\ (k26\_valued\_1\ X0\ X1\ X2\ X3)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k1\_numbers))))) \tag{11}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_xboole\_0\ X1)) \tag{12}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow((v1\_partfun1\ X2\ X0)\Rightarrow(v1\_funct\_2\ X2\ X0\ X1)) \tag{14}$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k1\_numbers)\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ k1\_numbers)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ k1\_numbers)\Rightarrow(\forall X4.((v1\_funct\_1\ X4)\wedge((v1\_funct\_2\ X4\ k1\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))))\Rightarrow(\forall X5.((v1\_funct\_1\ X5)\wedge((v1\_funct\_2\ X5\ k1\_numbers\ k1\_numbers)\wedge(m1\_subset\_1\ X5\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)))))\Rightarrow(k1\_seq\_1\ (k1\_seqfunc\ k1\_numbers\ k1\_numbers\ (k7\_diff\_1\ (k3\_valued\_1\ k1\_numbers\ k1\_numbers\ k1\_numbers\ X4\ (k26\_valued\_1\ k1\_numbers\ k1\_numbers\ X5\ X1))\ X2)\ (k2\_nat\_1\ X0\ np\_\_1))\ X3 = k7\_real\_1\ (k1\_seq\_1\ (k1\_seqfunc\ k1\_numbers\ k1\_numbers\ (k7\_diff\_1\ X4\ X2)\ (k2\_nat\_1\ X0\ np\_\_1))\ X3)\ (k8\_real\_1\ X1\ (k1\_seq\_1\ (k1\_seqfunc\ k1\_numbers\ k1\_numbers\ (k7\_diff\_1\ X5\ X2)\ (k2\_nat\_1\ X0\ np\_\_1))\ X3))))))))$$