t12_turing_1 (TMPYfM1Wm8TUM5XKoWo97dmm3afAb7juybz)

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Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $l1\_turing\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2\_turing\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_numbers : \iota$ be given. Let $k9\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_turing\_1 : \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_turing\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u5\_turing\_1 : \iota \Rightarrow \iota$ be given. Let $k9\_turing\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ 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 $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k3\_xtuple\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_real\_1 : \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $k8\_turing\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_turing\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_turing\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_turing\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_mcart\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers) \Rightarrow (\forall X1.(m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers) \Rightarrow (\forall X2.(l1\_turing\_1\ X2) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (k3\_zfmisc\_1\ (u2\_turing\_1\ X2)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X2)))) \Rightarrow (((r1\_xxreal\_0\ X0\ X1) \wedge (k9\_turing\_1\ X2\ (k8\_nat\_1\ (k3\_zfmisc\_1\ (u2\_turing\_1\ X2)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X2)))\ (k10\_turing\_1\ X2\ X3)\ X0) = k8\_nat\_1\ (k3\_zfmisc\_1\ (u2\_turing\_1\ X2)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X2)))\ (k10\_turing\_1\ X2\ X3)\ X0)) \Rightarrow (k8\_nat\_1\ (k3\_zfmisc\_1\ (u2\_turing\_1\ X2)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X2)))\ (k10\_turing\_1\ X2\ X3)\ X1 = k8\_nat\_1\ (k3\_zfmisc\_1\ (u2\_turing\_1\ X2)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X2)))\ (k10\_turing\_1\ X2\ X3)\ X0))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ X0\ X1)\Leftrightarrow(m1\_subset\_1\ X2\ X1)) \tag{2}$$

Assume the following.

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

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1)\wedge(v3\_ordinal1\ k4\_ordinal1) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ k5\_numbers\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ X0)))))\wedge(v7\_ordinal1\ X2))\Rightarrow(m1\_subset\_1\ (k8\_nat\_1\ X0\ X1\ X2)\ X0) \tag{5}$$

Assume the following.

$$m1\_subset\_1\ k5\_numbers\ (k1\_zfmisc\_1\ k1\_numbers) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((l1\_turing\_1\ X0)\wedge(m1\_subset\_1\ X1\ (k3\_zfmisc\_1\ (u2\_turing\_1\ X0)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X0)))))\Rightarrow((v1\_funct\_1\ (k10\_turing\_1\ X0\ X1))\wedge((v1\_funct\_2\ (k10\_turing\_1\ X0\ X1)\ k5\_numbers\ (k3\_zfmisc\_1\ (u2\_turing\_1\ X0)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X0))))\wedge(m1\_subset\_1\ (k10\_turing\_1\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k3\_zfmisc\_1\ (u2\_turing\_1\ X0)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X0)))))))) \tag{7}$$

Assume the following.

$$\forall X0.(l1\_turing\_1\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k3\_zfmisc\_1\ (u2\_turing\_1\ X0)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X0))))\Rightarrow(((k1\_mcart\_1\ (u2\_turing\_1\ X0)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X0))\ X1\neq u5\_turing\_1\ X0)\Rightarrow(k9\_turing\_1\ X0\ X1 = k3\_xtuple\_0\ (k1\_mcart\_1\ (u2\_turing\_1\ X0)\ (u1\_turing\_1\ X0)\ (k8\_domain\_1\ k1\_numbers\ (k1\_real\_1\ np\_\_1)\ k6\_numbers\ np\_\_1)\ (k8\_turing\_1\ X0\ X1))\ (k2\_xcmplx\_0\ (k7\_turing\_1\ X0\ X1)\ (k6\_turing\_1\ X0\ (k8\_turing\_1\ X0\ X1)))\ (k5\_turing\_1\ X0\ (k3\_mcart\_1\ (u2\_turing\_1\ X0)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X0))\ X1)\ (k7\_turing\_1\ X0\ X1)\ (k2\_mcart\_1\ (u2\_turing\_1\ X0)\ (u1\_turing\_1\ X0)\ (k8\_domain\_1\ k1\_numbers\ (k1\_real\_1\ np\_\_1)\ k6\_numbers\ np\_\_1)\ (k8\_turing\_1\ X0\ X1)))))\wedge((k1\_mcart\_1\ (u2\_turing\_1\ X0)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X0))\ X1 = u5\_turing\_1\ X0)\Rightarrow(k9\_turing\_1\ X0\ X1 = X1)))) \tag{8}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{9}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))\Rightarrow(v1\_xboole\_0\ X1)) \tag{10}$$

Theorem 1

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers)\Rightarrow(\forall X1.(m2\_subset\_1\ X1\ k1\_numbers\ k5\_numbers)\Rightarrow(\forall X2.(l1\_turing\_1\ X2)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (k3\_zfmisc\_1\ (u2\_turing\_1\ X2)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X2))))\Rightarrow(((r1\_xxreal\_0\ X0\ X1)\wedge(k1\_mcart\_1\ (u2\_turing\_1\ X2)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X2))\ (k8\_nat\_1\ (k3\_zfmisc\_1\ (u2\_turing\_1\ X2)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X2)))\ (k10\_turing\_1\ X2\ X3)\ X0) = u5\_turing\_1\ X2))\Rightarrow(k8\_nat\_1\ (k3\_zfmisc\_1\ (u2\_turing\_1\ X2)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X2)))\ (k10\_turing\_1\ X2\ X3)\ X1 = k8\_nat\_1\ (k3\_zfmisc\_1\ (u2\_turing\_1\ X2)\ k4\_numbers\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X2)))\ (k10\_turing\_1\ X2\ X3)\ X0)))))$$