t24_turing_1 (TMd-Dxh8UnDhjvhZmWi2QvFVqV5m3P97gDUY)

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Let $l1\_turing\_1 : \iota \Rightarrow o$ be given. Let $m2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_numbers : \iota$ be given. Let $u1\_turing\_1 : \iota \Rightarrow \iota$ be given. Let $k9\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_int\_1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_turing\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_funct\_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ 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 $m1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_finset\_1 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v1\_relat\_1\ X0) \wedge (v1\_funct\_1\ X0)) \Rightarrow (\forall X1.(X1 \in k9\_xtuple\_0\ X0) \Rightarrow (k1\_funct\_4\ X0\ (k16\_funcop\_1\ X1\ (k1\_funct\_1\ X0\ X1)) = X0)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X1) \vee (X0 \in X1)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ X0\ X1) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))) \wedge ((v1\_funct\_1\ X3) \wedge ((v1\_funct\_2\ X3\ X0\ X1) \wedge (m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))))) \Rightarrow (r2\_funct\_2\ X0\ X1\ X2\ X2) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X1) \wedge (m1\_funct\_2\ X2\ X0\ X1)) \Rightarrow (\forall X3.(m2\_funct\_2\ X3\ X0\ X1\ X2) \Leftrightarrow (m1\_subset\_1\ X3\ X2)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(\neg v1\_xboole\_0\ X1)\Rightarrow(k9\_funct\_2\ X0\ X1 = k1\_funct\_2\ X0\ X1) \tag{5}$$

Assume the following.

$$\forall X0.(l1\_turing\_1\ X0)\Rightarrow((\neg v1\_xboole\_0\ (u1\_turing\_1\ X0))\wedge(v1\_finset\_1\ (u1\_turing\_1\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X1)\wedge(m1\_funct\_2\ X2\ X0\ X1))\Rightarrow(\forall X3.(m2\_funct\_2\ X3\ X0\ X1\ X2)\Rightarrow((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ X0\ X1)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_funct\_2\ X2\ X0\ X1)\Rightarrow(\neg v1\_xboole\_0\ X2) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.(\neg v1\_xboole\_0\ X1)\Rightarrow(m1\_funct\_2\ (k9\_funct\_2\ X0\ X1)\ X0\ X1) \tag{9}$$

Assume the following.

$$\forall X0.(l1\_turing\_1\ X0)\Rightarrow(\forall X1.(m2\_funct\_2\ X1\ k4\_numbers\ (u1\_turing\_1\ X0)\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X0)))\Rightarrow(\forall X2.(v1\_int\_1\ X2)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_turing\_1\ X0))\Rightarrow(k5\_turing\_1\ X0\ X1\ X2\ X3 = k1\_funct\_4\ X1\ (k16\_funcop\_1\ X2\ X3))))) \tag{10}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0)\Leftrightarrow(X0 \in k4\_numbers) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k1\_funct\_2\ X0\ X1)\Leftrightarrow(\forall X3.(X3 \in X2)\Leftrightarrow(\exists X4.((v1\_relat\_1\ X4)\wedge(v1\_funct\_1\ X4))\wedge((X3 = X4)\wedge((k9\_xtuple\_0\ X4 = X0)\wedge(r1\_tarski\ (k10\_xtuple\_0\ X4)\ X1))))) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{13}$$

Theorem 1

$$\forall X0.(l1\_turing\_1\ X0)\Rightarrow(\forall X1.(m2\_funct\_2\ X1\ k4\_numbers\ (u1\_turing\_1\ X0)\ (k9\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X0)))\Rightarrow(\forall X2.(v1\_int\_1\ X2)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_turing\_1\ X0))\Rightarrow((k1\_funct\_1\ X1\ X2 = X3)\Rightarrow(r2\_funct\_2\ k4\_numbers\ (u1\_turing\_1\ X0)\ (k5\_turing\_1\ X0\ X1\ X2\ X3)\ X1)))))$$