t14_robbins4 (TMHaveRpU1nyJ7tJWW98Sr42q9kzLoM9uKn)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_robbins4 : \iota$ be given. Let $k2\_robbins4 : \iota$ be given. Let $k13\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v10\_lattices : \iota \Rightarrow o$ be given. Let $l3\_lattices : \iota \Rightarrow o$ be given. Let $g3\_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2\_lattices : \iota \Rightarrow \iota$ be given. Let $u1\_lattices : \iota \Rightarrow \iota$ be given. Let $k3\_lattice3 : \iota \Rightarrow \iota$ be given. Let $k4\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4\_robbins1 : \iota \Rightarrow o$ be given. Let $v3\_lattices : \iota \Rightarrow o$ be given. Let $l4\_robbins1 : \iota \Rightarrow o$ be given. Let $l2\_robbins1 : \iota \Rightarrow o$ be given. Let $v1\_orders\_2 : \iota \Rightarrow o$ be given. Let $k2\_yellow\_1 : \iota \Rightarrow \iota$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $k14\_lattice3 : \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $np\_\_3 : \iota$ be given. Let $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_robbins1 : \iota \Rightarrow \iota$ be given. Let $k3\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v10\_lattices\ X0) \wedge (l3\_lattices\ X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v10\_lattices\ X1) \wedge (l3\_lattices\ X1))) \Rightarrow ((g3\_lattices\ (u1\_struct\_0\ X0)\ (u2\_lattices\ X0)\ (u1\_lattices\ X0) = g3\_lattices\ (u1\_struct\_0\ X1)\ (u2\_lattices\ X1)\ (u1\_lattices\ X1)) \Rightarrow (k3\_lattice3\ X0 = k3\_lattice3\ X1))) \tag{1}$$

Assume the following.

$$k3\_lattice3\ (g3\_lattices\ (u1\_struct\_0\ k2\_robbins4)\ (u2\_lattices\ k2\_robbins4)\ (u1\_lattices\ k2\_robbins4)) = k1\_robbins4 \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v10\_lattices\ X0) \wedge (l3\_lattices\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow ((k4\_lattices\ X0\ X1\ X2 = k12\_lattice3\ (k3\_lattice3\ X0)\ (k4\_lattice3\ X0\ X1)\ (k4\_lattice3\ X0\ X2)) \wedge (k3\_lattices\ X0\ X1\ X2 = k13\_lattice3\ (k3\_lattice3\ X0)\ (k4\_lattice3\ X0\ X1)\ (k4\_lattice3\ X0\ X2))))) \tag{3}$$

Assume the following.

$$(v10\_lattices\ k2\_robbins4)\wedge(v4\_robbins1\ k2\_robbins4) \tag{4}$$

Assume the following.

$$(\neg v2\_struct\_0\ k2\_robbins4)\wedge(v4\_robbins1\ k2\_robbins4) \tag{5}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v10\_lattices\ X0)\wedge(l3\_lattices\ X0)))\Rightarrow((v3\_lattices\ (g3\_lattices\ (u1\_struct\_0\ X0)\ (u2\_lattices\ X0)\ (u1\_lattices\ X0)))\wedge(v10\_lattices\ (g3\_lattices\ (u1\_struct\_0\ X0)\ (u2\_lattices\ X0)\ (u1\_lattices\ X0)))) \tag{6}$$

Assume the following.

$$\forall X0.(l4\_robbins1\ X0)\Rightarrow((l2\_robbins1\ X0)\wedge(l3\_lattices\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_orders\_2\ (k2\_yellow\_1\ X0))\wedge(l1\_orders\_2\ (k2\_yellow\_1\ X0)) \tag{8}$$

Assume the following.

$$(v4\_robbins1\ k2\_robbins4)\wedge(l4\_robbins1\ k2\_robbins4) \tag{9}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow((\neg v2\_struct\_0\ (k14\_lattice3\ X0))\wedge((v3\_lattices\ (k14\_lattice3\ X0))\wedge((v10\_lattices\ (k14\_lattice3\ X0))\wedge(l3\_lattices\ (k14\_lattice3\ X0))))) \tag{10}$$

Assume the following.

$$\forall X0.((v4\_robbins1\ X0)\wedge(l4\_robbins1\ X0))\Rightarrow((X0 = k2\_robbins4)\Leftrightarrow((g3\_lattices\ (u1\_struct\_0\ X0)\ (u2\_lattices\ X0)\ (u1\_lattices\ X0) = k14\_lattice3\ k1\_robbins4)\wedge(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ np\_\_3))\Rightarrow((X1 = X2)\Rightarrow(k1\_funct\_1\ (u1\_robbins1\ X0)\ X1 = k3\_subset\_1\ np\_\_3\ X2)))))) \tag{11}$$

Assume the following.

$$k1\_robbins4 = k2\_yellow\_1\ (k4\_enumset1\ k6\_numbers\ np\_\_1\ (k6\_subset\_1\ np\_\_3\ np\_\_1)\ np\_\_2\ (k6\_subset\_1\ np\_\_3\ np\_\_2)\ np\_\_3) \tag{12}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v10\_lattices\ X0)\wedge(l3\_lattices\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(k4\_lattice3\ X0\ X1 = X1)) \tag{13}$$

Assume the following.

$$\forall X0.(l3\_lattices\ X0)\Rightarrow((v3\_lattices\ X0)\Rightarrow(X0 = g3\_lattices\ (u1\_struct\_0\ X0)\ (u2\_lattices\ X0)\ (u1\_lattices\ X0))) \tag{14}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ (u1\_struct\_0\ k1\_robbins4))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ k1\_robbins4))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ k2\_robbins4))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ k2\_robbins4))\Rightarrow(((X0 = X2)\wedge(X1 = X3))\Rightarrow((k13\_lattice3\ k1\_robbins4\ X0\ X1 = k3\_lattices\ k2\_robbins4\ X2\ X3)\wedge(k12\_lattice3\ k1\_robbins4\ X0\ X1 = k4\_lattices\ k2\_robbins4\ X2\ X3))))))$$