

t28_robbins4

(TMU1HqTnEpDDkfbvyxwceiffK8h3tSJ7gXQ)

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Let $k6_lattices : \iota \Rightarrow \iota$ be given. Let $k2_robbins4 : \iota$ be given. Let $np_3 : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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. 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v4_robbins1 : \iota \Rightarrow o$ be given. Let $l4_robbins1 : \iota \Rightarrow o$ be given. Let $l2_robbins1 : \iota \Rightarrow o$ be given. Let $l1_lattices : \iota \Rightarrow o$ be given. Let $l2_lattices : \iota \Rightarrow o$ be given. Let $v4_lattices : \iota \Rightarrow o$ be given. Let $v5_lattices : \iota \Rightarrow o$ be given. Let $v6_lattices : \iota \Rightarrow o$ be given. Let $v7_lattices : \iota \Rightarrow o$ be given. Let $v8_lattices : \iota \Rightarrow o$ be given. Let $v9_lattices : \iota \Rightarrow o$ be given. Assume the following.

$$u1_struct_0 \ k2_robbins4 = k4_enumset1 \ k6_numbers \ np_1 \ (k6_subset_1 \ np_3 \ np_1) \ np_2 \ (k6_subset_1 \ np_3 \ np_2) \ np_3 \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 \ X0) \wedge ((v10_lattices \ X0) \wedge (l3_lattices \ X0))) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (u1_struct_0 \ X0)) \Rightarrow ((\forall X2. \\ & (m1_subset_1 \ X2 \ (u1_struct_0 \ X0)) \Rightarrow (k3_lattices \ X0 \ X2 \ X1 = X1)) \Rightarrow \\ & (X1 = k6_lattices \ X0))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1_subset_1 \ X0 \ (u1_struct_0 \ k2_robbins4)) \Rightarrow (\forall X1. \\ & (m1_subset_1 \ X1 \ (u1_struct_0 \ k2_robbins4)) \Rightarrow ((X0 = np_3) \Rightarrow (k3_lattices \ k2_robbins4 \ X0 \ X1 = X0))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 \ X0 \ X1) \tag{4}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{5}$$

Assume the following.

$$(v10_lattices\ k2_robbins4)\wedge(v4_robbins1\ k2_robbins4) \quad (6)$$

Assume the following.

$$(\neg v2_struct_0\ k2_robbins4)\wedge(v4_robbins1\ k2_robbins4) \quad (7)$$

Assume the following.

$$\forall X0.(l4_robbins1\ X0)\Rightarrow((l2_robbins1\ X0)\wedge(l3_lattices\ X0)) \quad (8)$$

Assume the following.

$$\forall X0.(l3_lattices\ X0)\Rightarrow((l1_lattices\ X0)\wedge(l2_lattices\ X0)) \quad (9)$$

Assume the following.

$$(v4_robbins1\ k2_robbins4)\wedge(l4_robbins1\ k2_robbins4) \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & \forall X6.(X6 = k4_enumset1\ X0\ X1\ X2\ X3\ X4\ X5)\Leftrightarrow(\forall X7.(X7 \in X6)\Leftrightarrow \\ & (\neg(X7\neq X0)\wedge((X7\neq X1)\wedge((X7\neq X2)\wedge((X7\neq X3)\wedge((X7\neq X4)\wedge(X7\neq X5)))))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0\ X0)\wedge((v4_lattices \\ & X0)\wedge(l2_lattices\ X0)))\wedge((m1_subset_1\ X1\ (u1_struct_0\ X0))\wedge(\\ & m1_subset_1\ X2\ (u1_struct_0\ X0))))\Rightarrow(k3_lattices\ X0\ X1\ X2 = k3_lattices \\ & X0\ X2\ X1) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l3_lattices\ X0)\Rightarrow(((\neg v2_struct_0\ X0)\wedge(v10_lattices \\ & X0))\Rightarrow((\neg v2_struct_0\ X0)\wedge((v4_lattices\ X0)\wedge((v5_lattices\ X0)\wedge \\ & ((v6_lattices\ X0)\wedge((v7_lattices\ X0)\wedge((v8_lattices\ X0)\wedge(v9_lattices \\ & X0)))))))) \end{aligned} \quad (13)$$

Theorem 1 $k6_lattices\ k2_robbins4 = np_3$.