

t23_robins1

(TMHEjG28pRjfwTR4nAYJSUnxXGtUn5fMrnM)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v4_lattices : \iota \Rightarrow o$ be given. Let $v5_lattices : \iota \Rightarrow o$ be given. Let $v6_robins1 : \iota \Rightarrow o$ be given. Let $l2_robins1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_robins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_lattices : \iota \Rightarrow \iota$ be given. Let $k6_robins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_robins1 : \iota \Rightarrow \iota$ be given. Let $k3_robins1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_robins1 : \iota \Rightarrow o$ be given. Let $l2_lattices : \iota \Rightarrow o$ be given. Let $l1_robins1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v4_lattices X0) \wedge ((v5_lattices \\ X0) \wedge ((v6_robins1 X0) \wedge ((v7_robins1 X0) \wedge (l2_robins1 X0)))))) \Rightarrow \\ ((k3_robins1 X0 (k6_lattices X0) = k7_robins1 X0) \wedge (k6_lattices \\ X0 = k3_robins1 X0 (k7_robins1 X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v4_lattices X0) \wedge ((v5_lattices \\ X0) \wedge ((v6_robins1 X0) \wedge (l2_robins1 X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\ X1 (u1_struct_0 X0)) \Rightarrow (k3_robins1 X0 (k3_robins1 X0 X1) = X1)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v4_lattices X0) \wedge ((v5_lattices \\ X0) \wedge ((v6_robins1 X0) \wedge (l2_robins1 X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\ X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 \\ X0)) \Rightarrow (((k5_robins1 X0 (k3_robins1 X0 X1) X2 = k6_lattices X0) \wedge \\ (k5_robins1 X0 (k3_robins1 X0 X2) X1 = k6_lattices X0)) \Rightarrow (X1 = X2)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v4_lattices X0) \wedge ((v5_lattices \\ X0) \wedge ((v6_robins1 X0) \wedge (l2_robins1 X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\ X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 \\ X0)) \Rightarrow (k5_robins1 X0 X1 X2 = k3_robins1 X0 (k6_robins1 X0 (k3_robins1 \\ X0 X1) (k3_robins1 X0 X2)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(l2_robbins1\ X0)\Rightarrow((l2_lattices\ X0)\wedge(l1_robbins1\ X0)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2_struct_0\ X0)\wedge(l1_robbins1\ X0))\wedge(m1_subset_1\ X1\ (u1_struct_0\ X0)))\Rightarrow(m1_subset_1\ (k3_robbins1\ X0\ X1)\ (u1_struct_0\ X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2_struct_0\ X0)\wedge((v4_lattices\ X0)\wedge(l2_robbins1\ X0)))\wedge((m1_subset_1\ X1\ (u1_struct_0\ X0))\wedge(m1_subset_1\ X2\ (u1_struct_0\ X0))))\Rightarrow(k5_robbins1\ X0\ X1\ X2 = k5_robbins1\ X0\ X2\ X1) \quad (7)$$

Assume the following.

$$\forall X0.(l2_robbins1\ X0)\Rightarrow(((\neg v2_struct_0\ X0)\wedge((v4_lattices\ X0)\wedge((v5_lattices\ X0)\wedge(v6_robbins1\ X0))))\Rightarrow((\neg v2_struct_0\ X0)\wedge(v7_robbins1\ X0)) \quad (8)$$

Theorem 1

$$\forall X0.(((\neg v2_struct_0\ X0)\wedge((v4_lattices\ X0)\wedge((v5_lattices\ X0)\wedge((v6_robbins1\ X0)\wedge(l2_robbins1\ X0))))\Rightarrow(\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ X0))\Rightarrow(\forall X2.(m1_subset_1\ X2\ (u1_struct_0\ X0))\Rightarrow(((k5_robbins1\ X0\ X1\ X2 = k6_lattices\ X0)\wedge(k6_robbins1\ X0\ X1\ X2 = k7_robbins1\ X0))\Rightarrow(k3_robbins1\ X0\ X1 = X2))))))$$