

t15_robbins1 (TMVTErik- dAXKmbfJTzKavMXPL9jDpPLQUuS)

October 27, 2020

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 $v6_robbins1 : \iota \Rightarrow o$ be given. Let $l2_robbins1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k6_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_robbins1 : \iota \Rightarrow \iota$ be given. Let $v7_robbins1 : \iota \Rightarrow o$ be given. Let $k6_lattices : \iota \Rightarrow \iota$ be given. Let $k4_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l2_lattices : \iota \Rightarrow o$ be given. Let $l1_robbins1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2_struct_0 X0) \wedge ((v4_lattices X0) \wedge ((v5_lattices \\ X0) \wedge ((v6_robbins1 X0) \wedge ((v7_robbins1 X0) \wedge (l2_robbins1 X0)))))) \Rightarrow & (1) \\ ((k3_robbins1 X0 (k6_lattices X0) = k7_robbins1 X0) \wedge (k6_lattices \\ X0 = k3_robbins1 X0 (k7_robbins1 X0))) \end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (&((\neg v2_struct_0 X0) \wedge ((v4_lattices \\ X0) \wedge ((v5_lattices X0) \wedge (l2_robbins1 X0)))) \wedge ((m1_subset_1 X1 \\ (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow (k6_robbins1 \\ X0 X1 X2 = k4_robbins1 X0 X1 X2) & (2) \end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (&((\neg v2_struct_0 X0) \wedge ((v4_lattices \\ X0) \wedge (l2_robbins1 X0))) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge \\ m1_subset_1 X2 (u1_struct_0 X0)))) \Rightarrow (k5_robbins1 X0 X1 X2 = k1_lattices \\ X0 X1 X2) & (3) \end{aligned}$$

Assume the following.

$$\forall X0. (l2_robbins1 X0) \Rightarrow ((l2_lattices X0) \wedge (l1_robbins1 X0)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge((v4_lattices X0)\wedge(l2_robbins1 X0)))\wedge((m1_subset_1 X1 (u1_struct_0 X0))\wedge(m1_subset_1 X2 (u1_struct_0 X0))))\Rightarrow(m1_subset_1 (k5_robbins1 X0 X1 X2) (u1_struct_0 X0)) \quad (5)$$

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.

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v4_lattices X0)\wedge((v5_lattices X0)\wedge((v6_robbins1 X0)\wedge((v7_robbins1 X0)\wedge(l2_robbins1 X0))))))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow((X1 = k6_lattices X0)\Leftrightarrow(\exists X2.(m1_subset_1 X2 (u1_struct_0 X0))\wedge(X1 = k5_robbins1 X0 X2 (k3_robbins1 X0 X2)))))) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge(l2_robbins1 X0))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow(k4_robbins1 X0 X1 X2 = k3_robbins1 X0 (k1_lattices X0 (k3_robbins1 X0 X1) (k3_robbins1 X0 X2)))))) \quad (8)$$

Assume the following.

$$\forall X0.(l2_robbins1 X0)\Rightarrow(((\neg v2_struct_0 X0)\wedge((v4_lattices X0)\wedge((v5_lattices X0)\wedge(v6_robbins1 X0))))\Rightarrow((\neg v2_struct_0 X0)\wedge(v7_robbins1 X0))) \quad (9)$$

Theorem 1

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