

t18_robbins2

(TMNvsj6pZ3C1hLmXoVqAMFAhuXaV7aazj52)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_robbins2 : \iota \Rightarrow o$ 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 $k3_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v1_robbins2 X0) \wedge (l2_robbins1 \\ & \quad X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ & \quad (u1_struct_0 X0)) \Rightarrow (\forall X4. (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow \\ & \quad (k3_robbins1 X0 (k1_lattices X0 (k3_robbins1 X0 (k1_lattices X0 \\ & \quad X1 X2)) (k3_robbins1 X0 (k1_lattices X0 (k3_robbins1 X0 (k1_lattices \\ & \quad X0 X3 X1)) (k3_robbins1 X0 (k1_lattices X0 (k3_robbins1 X0 X2)) (k3_robbins1 \\ & \quad X0 (k1_lattices X0 X4 X2)))))) = X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v1_robbins2 X0) \wedge (l2_robbins1 \\ & \quad X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ & \quad (u1_struct_0 X0)) \Rightarrow (k3_robbins1 X0 (k1_lattices X0 X1 (k3_robbins1 \\ & \quad X0 (k1_lattices X0 (k3_robbins1 X0 (k1_lattices X0 X2 X3)) (k3_robbins1 \\ & \quad X0 (k1_lattices X0 X2 X1)))))) = k3_robbins1 X0 (k1_lattices X0 X2 \\ & \quad X1)))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. (l2_robbins1 X0) \Rightarrow ((l2_lattices X0) \wedge (l1_robbins1 X0)) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (l1_robbins1 X0)) \wedge \\ & \quad (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow (m1_subset_1 (k3_robbins1 \\ & \quad X0 X1) (u1_struct_0 X0)) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0)\wedge(l2_lattices X0))\wedge((m1_subset_1 X1 (u1_struct_0 X0))\wedge(m1_subset_1 X2 (u1_struct_0 X0))))\Rightarrow(m1_subset_1 (k1_lattices X0 X1 X2) (u1_struct_0 X0)) \quad (5)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v1_robbins2 X0)\wedge(l2_robbins1 X0)))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_struct_0 X0))\Rightarrow(k3_robbins1 X0 (k1_lattices X0 (k3_robbins1 X0 X1) (k3_robbins1 X0 (k1_lattices X0 X2 X1)) = X1)))$$