

t12_robins2
(TMG87LFE45nigBZahuyvZKUPywAKPKN3RRS)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_robins2 : \iota \Rightarrow o$ 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 $k3_robins1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l2_lattices : \iota \Rightarrow o$ be given. Let $l1_robins1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v1_robins2 X0) \wedge (l2_robins1 \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (k3_robins1 X0 (k1_lattices X0 X1 (k3_robins1 \\ & X0 (k1_lattices X0 (k3_robins1 X0 (k1_lattices X0 X2 X3)) (k3_robins1 \\ & X0 (k1_lattices X0 X2 X1)))))) = k3_robins1 X0 (k1_lattices X0 X2 \\ & X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(l2_robins1 X0) \Rightarrow ((l2_lattices X0) \wedge (l1_robins1 X0)) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v2_struct_0 X0) \wedge (l1_robins1 X0)) \wedge \\ & (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow (m1_subset_1 (k3_robins1 \\ & X0 X1) (u1_struct_0 X0)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((\neg v2_struct_0 X0) \wedge (l2_lattices \\ & X0)) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge (m1_subset_1 X2 (u1_struct_0 \\ & X0)))) \Rightarrow (m1_subset_1 (k1_lattices X0 X1 X2) (u1_struct_0 X0)) \end{aligned} \tag{4}$$

Theorem 1

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