

t51_robins2

(TMSnkJ9TcnK5GaewSYd1bNYkfFpriJrt98c)

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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 $k5_robins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_robins1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_lattices : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v1_robins2 X0) \wedge (l2_robins1 \\ & \quad X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & \quad (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. (m1_subset_1 X3 \\ & \quad (u1_struct_0 X0)) \Rightarrow (k5_robins1 X0 (k3_robins1 X0 (k5_robins1 \\ & \quad X0 (k3_robins1 X0 X1) (k3_robins1 X0 (k5_robins1 X0 (k5_robins1 \\ & \quad X0 X2 X1) (k5_robins1 X0 X2 X3)))))) (k5_robins1 X0 X2 X3) = k5_robins1 \\ & \quad X0 (k3_robins1 X0 (k3_robins1 X0 (k5_robins1 X0 X2 X1))) (k5_robins1 \\ & \quad X0 X2 X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v1_robins2 X0) \wedge (l2_robins1 \\ & \quad X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (k3_robins1 \\ & \quad X0 (k3_robins1 X0 X1) = X1)) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v4_lattices \\ & \quad X0) \wedge (l2_robins1 X0))) \wedge ((m1_subset_1 X1 (u1_struct_0 X0)) \wedge \\ & \quad m1_subset_1 X2 (u1_struct_0 X0))) \Rightarrow (m1_subset_1 (k5_robins1 \\ & \quad X0 X1 X2) (u1_struct_0 X0)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. (l2_robins1 X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge (v1_robins2 \\ & \quad X0)) \Rightarrow ((\neg v2_struct_0 X0) \wedge (v4_lattices X0))) \end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v1_robbins2 X0) \wedge (l2_robbins1 \\ & X0))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3.(m1_subset_1 X3 \\ & (u1_struct_0 X0)) \Rightarrow (k5_robbins1 X0 (k3_robbins1 X0 (k5_robbins1 \\ & X0 (k3_robbins1 X0 X1) (k3_robbins1 X0 (k5_robbins1 X0 (k5_robbins1 \\ & X0 X2 X1) (k5_robbins1 X0 X2 X3)))))) (k5_robbins1 X0 X2 X3) = k5_robbins1 \\ & X0 (k5_robbins1 X0 X2 X1) (k5_robbins1 X0 X2 X3)))))) \end{aligned}$$