

# t30\_robins2 (TMdhPMcZC- CMH2v3Qs1XP1sFB6KVdh9ok6TV)

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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  $l2\_lattices : \iota \Rightarrow o$  be given. Let  $l1\_robins1 : \iota \Rightarrow o$  be given. Let  $v4\_lattices : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v1\_robins2 X0) \wedge (l2\_robins1 \\ X0))) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. \\ (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (k5\_robins1 X0 (k3\_robins1 \\ X0 (k5\_robins1 X0 (k3\_robins1 X0 (k5\_robins1 X0 X1 X2)) X1)) X2 = \\ X2))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (l2\_robins1 X0) \Rightarrow ((l2\_lattices X0) \wedge (l1\_robins1 X0)) \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices \\ X0) \wedge (l2\_robins1 X0))) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge \\ m1\_subset\_1 X2 (u1\_struct\_0 X0))) \Rightarrow (m1\_subset\_1 (k5\_robins1 \\ X0 X1 X2) (u1\_struct\_0 X0)) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge (l1\_robins1 X0)) \wedge \\ (m1\_subset\_1 X1 (u1\_struct\_0 X0))) \Rightarrow (m1\_subset\_1 (k3\_robins1 \\ X0 X1) (u1\_struct\_0 X0)) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices \\ X0) \wedge (l2\_robins1 X0))) \wedge ((m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge \\ m1\_subset\_1 X2 (u1\_struct\_0 X0))) \Rightarrow (k5\_robins1 X0 X1 X2 = k5\_robins1 \\ X0 X2 X1) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.(l2\_robbins1\ X0)\Rightarrow(((\neg v2\_struct\_0\ X0)\wedge(v1\_robbins2\ X0))\Rightarrow((\neg v2\_struct\_0\ X0)\wedge(v4\_lattices\ X0))) \quad (6)$$

**Theorem 1**

$$\begin{aligned} &\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v1\_robbins2\ X0)\wedge(l2\_robbins1\ X0)))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2. \\ &(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(k5\_robbins1\ X0\ X1\ (k3\_robbins1\ X0\ (k5\_robbins1\ X0\ (k3\_robbins1\ X0\ X2\ X1))\ X2)) = \\ &\quad X1))) \end{aligned}$$