

# t50\_robbins1 (TMM- nTT2gezunGEFAFTK6wjXirPFXhDwaEtE)

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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  $l2\_robbins1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k9\_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k13\_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k14\_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k11\_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k15\_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices X0) \wedge ((v5\_lattices \\ X0) \wedge ((v5\_robbins1 X0) \wedge (l2\_robbins1 X0)))))) \Rightarrow (\forall X1. (m1\_subset\_1 \\ X1 (u1\_struct\_0 X0)) \Rightarrow (k9\_robbins1 X0 (k15\_robbins1 X0 X1) (k11\_robbins1 \\ X0 X1) = X1)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices X0) \wedge ((v5\_lattices \\ X0) \wedge ((v5\_robbins1 X0) \wedge (l2\_robbins1 X0)))))) \Rightarrow (\forall X1. (m1\_subset\_1 \\ X1 (u1\_struct\_0 X0)) \Rightarrow (k5\_robbins1 X0 (k15\_robbins1 X0 X1) (k11\_robbins1 \\ X0 X1) = k5\_robbins1 X0 (k14\_robbins1 X0 X1) (k13\_robbins1 X0 X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices X0) \wedge ((v5\_lattices \\ X0) \wedge ((v5\_robbins1 X0) \wedge (l2\_robbins1 X0)))))) \Rightarrow (\forall X1. (m1\_subset\_1 \\ X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 \\ X0)) \Rightarrow (k9\_robbins1 X0 (k5\_robbins1 X0 X1 X2) (k9\_robbins1 X0 X1 X2) = \\ X2))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge (l2\_robbins1 X0)) \wedge \\ (m1\_subset\_1 X1 (u1\_struct\_0 X0))) \Rightarrow (m1\_subset\_1 (k15\_robbins1 \\ X0 X1) (u1\_struct\_0 X0)) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0 X0)\wedge(l2\_robbins1 X0))\wedge(m1\_subset\_1 X1 (u1\_struct\_0 X0)))\Rightarrow(m1\_subset\_1 (k14\_robbins1 X0 X1) (u1\_struct\_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0 X0)\wedge(l2\_robbins1 X0))\wedge(m1\_subset\_1 X1 (u1\_struct\_0 X0)))\Rightarrow(m1\_subset\_1 (k13\_robbins1 X0 X1) (u1\_struct\_0 X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0 X0)\wedge(l2\_robbins1 X0))\wedge(m1\_subset\_1 X1 (u1\_struct\_0 X0)))\Rightarrow(m1\_subset\_1 (k11\_robbins1 X0 X1) (u1\_struct\_0 X0)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0 X0)\wedge((v4\_lattices X0)\wedge(l2\_robbins1 X0)))\wedge((m1\_subset\_1 X1 (u1\_struct\_0 X0))\wedge(m1\_subset\_1 X2 (u1\_struct\_0 X0))))\Rightarrow(k5\_robbins1 X0 X1 X2 = k5\_robbins1 X0 X2 X1) \quad (8)$$

**Theorem 1**

$$\forall X0.((\neg v2\_struct\_0 X0)\wedge((v4\_lattices X0)\wedge((v5\_lattices X0)\wedge((v5\_robbins1 X0)\wedge(l2\_robbins1 X0)))))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0))\Rightarrow(k9\_robbins1 X0 (k5\_robbins1 X0 (k13\_robbins1 X0 X1) (k14\_robbins1 X0 X1)) X1 = k11\_robbins1 X0 X1))$$