

## t8\_robbins1

(TMb1vdFadBzEPXLKuSqw7cvwD9xMZQzRCL9)

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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  $v6\_robbins1 : \iota \Rightarrow o$  be given. Let  $v7\_robbins1 : \iota \Rightarrow o$  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  $k7\_robbins1 : \iota \Rightarrow \iota$  be given. Let  $k3\_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices X0) \wedge ((v5\_lattices \\ & X0) \wedge ((v6\_robbins1 X0) \wedge ((v7\_robbins1 X0) \wedge (l2\_robbins1 X0)))))) \Rightarrow \\ & (\exists X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \wedge (\forall X2. (m1\_subset\_1 \\ & X2 (u1\_struct\_0 X0)) \Rightarrow ((k4\_robbins1 X0 X1 X2 = X1) \wedge (k3\_robbins1 \\ & X0 (k5\_robbins1 X0 X2 (k3\_robbins1 X0 X2)) = X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices \\ & X0) \wedge ((v5\_lattices X0) \wedge (l2\_robbins1 X0)))) \wedge ((m1\_subset\_1 X1 \\ & (u1\_struct\_0 X0)) \wedge (m1\_subset\_1 X2 (u1\_struct\_0 X0)))) \Rightarrow (k6\_robbins1 \\ & X0 X1 X2 = k4\_robbins1 X0 X1 X2) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices X0) \wedge ((v5\_lattices \\ & X0) \wedge ((v6\_robbins1 X0) \wedge ((v7\_robbins1 X0) \wedge (l2\_robbins1 X0)))))) \Rightarrow \\ & (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow ((X1 = k7\_robbins1 \\ & X0) \Leftrightarrow (\forall X2. (m1\_subset\_1 X2 (u1\_struct\_0 X0)) \Rightarrow (k6\_robbins1 \\ & X0 X1 X2 = X1)))) \end{aligned} \tag{3}$$

### Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v4\_lattices X0) \wedge ((v5\_lattices \\ & X0) \wedge ((v6\_robbins1 X0) \wedge ((v7\_robbins1 X0) \wedge (l2\_robbins1 X0)))))) \Rightarrow \\ & (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (k7\_robbins1 X0 = \\ & k3\_robbins1 X0 (k5\_robbins1 X0 X1 (k3\_robbins1 X0 X1)))) \end{aligned}$$