

# t6\_robbins3 (TM- RXn2iNBnTknc2VeamoyQ2wNA3GucaS9KN)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_oposet\_1 : \iota \Rightarrow o$  be given. Let  $l2\_qmax\_1 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $l1\_robbins1 : \iota \Rightarrow o$  be given. Let  $u1\_robbins1 : \iota \Rightarrow \iota$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $k3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_partit\_2 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((v1\_funct\_1 X2) \wedge \\ & ((v1\_funct\_2 X2 X0 X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 \\ & X0 X1)))))) \wedge ((v1\_funct\_1 X3) \wedge ((v1\_funct\_2 X3 X0 X1) \wedge (m1\_subset\_1 \\ & X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1)))))) \Rightarrow ((r2\_funct\_2 X0 X1 X2 \\ & X3) \Leftrightarrow (X2 = X3)) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge (l1\_struct\_0 X0)) \Rightarrow (\neg v1\_xboole\_0 (u1\_struct\_0 X0)) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1\_robbins1 X0) \Rightarrow ((v1\_funct\_1 (u1\_robbins1 X0)) \wedge \\ & ((v1\_funct\_2 (u1\_robbins1 X0) (u1\_struct\_0 X0) (u1\_struct\_0 X0)) \wedge \\ & (m1\_subset\_1 (u1\_robbins1 X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 \\ & X0) (u1\_struct\_0 X0)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. (l2\_qmax\_1 X0) \Rightarrow ((l1\_orders\_2 X0) \wedge (l1\_robbins1 X0)) \tag{4}$$

Assume the following.

$$\forall X0. (l1\_robbins1 X0) \Rightarrow (l1\_struct\_0 X0) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0 X0)\wedge(l1\_robbins1 X0))\wedge(m1\_subset\_1 X1 (u1\_struct\_0 X0)))\Rightarrow(m1\_subset\_1 (k3\_robbins1 X0 X1) (u1\_struct\_0 X0)) \quad (6)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0)\wedge(l1\_robbins1 X0))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0))\Rightarrow(k3\_robbins1 X0 X1 = k3\_funct\_2 (u1\_struct\_0 X0) (u1\_struct\_0 X0) (u1\_robbins1 X0) X1)) \quad (7)$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0 X0)\Rightarrow(\forall X1.((v1\_funct\_1 X1)\wedge((v1\_funct\_2 X1 X0 X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X0))))))\Rightarrow((v1\_partit\_2 X1)\Leftrightarrow(\forall X2.(m1\_subset\_1 X2 X0)\Rightarrow(k3\_funct\_2 X0 X0 X1 (k3\_funct\_2 X0 X0 X1 X2) = X2))) \quad (8)$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0 X0)\wedge(l2\_qmax\_1 X0))\Rightarrow((v1\_oposet\_1 X0)\Leftrightarrow(\exists X1.((v1\_funct\_1 X1)\wedge((v1\_funct\_2 X1 (u1\_struct\_0 X0) (u1\_struct\_0 X0))\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0))))))\wedge((r2\_funct\_2 (u1\_struct\_0 X0) (u1\_struct\_0 X0) X1 (u1\_robbins1 X0))\wedge(v1\_partit\_2 X1)))) \quad (9)$$

**Theorem 1**

$$\forall X0.((\neg v2\_struct\_0 X0)\wedge((v1\_oposet\_1 X0)\wedge(l2\_qmax\_1 X0)))\Rightarrow(\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 X0))\Rightarrow(k3\_robbins1 X0 (k3\_robbins1 X0 X1) = X1))$$