

t18_robbins3 (TM-
SoLNzu1zqRLtZ6DFiFKEFDREABxcXppD8)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_robbins1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_robbins1 : \iota \Rightarrow \iota$ be given. Let $k3_robbins1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \\ & ((\neg v1_xboole_0 X1) \wedge (\neg v1_xboole_0 X3) \wedge (((v1_funct_1 X4) \wedge ((v1_funct_2 X4 X0 X1) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \wedge ((v1_funct_1 X5) \wedge ((v1_funct_2 X5 X2 X3) \wedge (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 X2 X3)))))) \Rightarrow ((r1_funct_2 X0 X1 X2 X3 X4 X5) \Leftrightarrow (X4 = X5)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X0) \wedge (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \wedge (m1_subset_1 X3 X0)) \Rightarrow (k3_funct_2 X0 X1 X2 X3 = k1_funct_1 X2 X3) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_robbins1 X0) \Rightarrow ((v1_funct_1 (u1_robbins1 X0)) \wedge ((v1_funct_2 (u1_robbins1 X0) (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (m1_subset_1 (u1_robbins1 X0) (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)))))) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(l1_robbins1\ X0)\Rightarrow(l1_struct_0\ X0) \quad (5)$$

Assume the following.

$$\begin{aligned} &\forall X0.((\neg v2_struct_0\ X0)\wedge(l1_robbins1\ X0))\Rightarrow(\forall X1. \\ &(m1_subset_1\ X1\ (u1_struct_0\ X0))\Rightarrow(k3_robbins1\ X0\ X1 = k3_funct_2 \\ &(u1_struct_0\ X0)\ (u1_struct_0\ X0)\ (u1_robbins1\ X0)\ X1)) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} &\forall X0.((\neg v2_struct_0\ X0)\wedge(l1_robbins1\ X0))\Rightarrow(\forall X1. \\ &((\neg v2_struct_0\ X1)\wedge(l1_robbins1\ X1))\Rightarrow(\forall X2.(m1_subset_1 \\ &X2\ (u1_struct_0\ X0))\Rightarrow(\forall X3.(m1_subset_1\ X3\ (u1_struct_0 \\ &X1))\Rightarrow(((r1_funct_2\ (u1_struct_0\ X0)\ (u1_struct_0\ X0)\ (u1_struct_0 \\ &X1)\ (u1_struct_0\ X1)\ (u1_robbins1\ X0)\ (u1_robbins1\ X1))\wedge(X2 = X3))\Rightarrow \\ &(k3_robbins1\ X0\ X2 = k3_robbins1\ X1\ X3)))))) \end{aligned}$$