

t21_robbs3 (TM-
RPz2CxY6KRgiWftDMBwm62dBw5R7EuRGM)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l4_robbs1 : \iota \Rightarrow o$ be given. Let $g4_robbs1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u2_lattices : \iota \Rightarrow \iota$ be given. Let $u1_lattices : \iota \Rightarrow \iota$ be given. Let $u1_robbs1 : \iota \Rightarrow \iota$ be given. Let $v8_robbs3 : \iota \Rightarrow o$ 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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $l2_lattices : \iota \Rightarrow o$ be given. Let $l1_robbs1 : \iota \Rightarrow o$ be given. Let $l1_lattices : \iota \Rightarrow o$ be given. Let $l2_robbs1 : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ be given. Let $k3_robbs1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. \forall X3. (((v1_funct_1 X1) \wedge \\
 & ((v1_funct_2 X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\
 & (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))))) \wedge (((v1_funct_1 X2) \wedge (\\
 & (v1_funct_2 X2 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
 & (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))))) \wedge ((v1_funct_1 X3) \wedge (\\
 & (v1_funct_2 X3 X0 X0) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 \\
 & X0 X0)))))) \Rightarrow (\forall X4. \forall X5. \forall X6. \forall X7. (g4_robbs1 \\
 & X0 X1 X2 X3 = g4_robbs1 X4 X5 X6 X7) \Rightarrow ((X0 = X4) \wedge ((X1 = X5) \wedge ((X2 = X6) \wedge \\
 & (X3 = X7))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. (l2_lattices X0) \Rightarrow ((v1_funct_1 (u2_lattices X0)) \wedge \\
 & ((v1_funct_2 (u2_lattices X0) (k2_zfmisc_1 (u1_struct_0 X0) (\\
 & u1_struct_0 X0)) (u1_struct_0 X0)) \wedge (m1_subset_1 (u2_lattices \\
 & X0) (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (\\
 & u1_struct_0 X0)) (u1_struct_0 X0))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_robbins1\ X0) \Rightarrow & ((v1_funct_1\ (u1_robbins1\ X0)) \wedge \\ & ((v1_funct_2\ (u1_robbins1\ X0)\ (u1_struct_0\ X0)\ (u1_struct_0\ X0)) \wedge \\ & (m1_subset_1\ (u1_robbins1\ X0)\ (k1_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0\ X0)\ (u1_struct_0\ X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_lattices\ X0) \Rightarrow & ((v1_funct_1\ (u1_lattices\ X0)) \wedge \\ & ((v1_funct_2\ (u1_lattices\ X0)\ (k2_zfmisc_1\ (u1_struct_0\ X0)\ (u1_struct_0\ X0))\ (u1_struct_0\ X0)) \wedge \\ & (m1_subset_1\ (u1_lattices\ X0)\ (k1_zfmisc_1\ (k2_zfmisc_1\ (k2_zfmisc_1\ (u1_struct_0\ X0)\ (u1_struct_0\ X0))\ (u1_struct_0\ X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(l4_robbins1\ X0) \Rightarrow ((l2_robbins1\ X0) \wedge (l3_lattices\ X0)) \quad (5)$$

Assume the following.

$$\forall X0.(l3_lattices\ X0) \Rightarrow ((l1_lattices\ X0) \wedge (l2_lattices\ X0)) \quad (6)$$

Assume the following.

$$\forall X0.(l2_robbins1\ X0) \Rightarrow ((l2_lattices\ X0) \wedge (l1_robbins1\ X0)) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((\neg v2_struct_0\ X0) \wedge (l1_robbins1\ X0)) \wedge \\ (m1_subset_1\ X1\ (u1_struct_0\ X0))) \Rightarrow (m1_subset_1\ (k3_robbins1\ X0\ X1)\ (u1_struct_0\ X0)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0\ X0) \wedge (l1_robbins1\ X0)) \Rightarrow & ((v8_robbins3\ X0) \Leftrightarrow (\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ X0)) \Rightarrow (k3_robbins1\ X0\ (k3_robbins1\ X0\ X1) = X1))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0\ X0) \wedge (l1_robbins1\ X0)) \Rightarrow & (\forall X1. \\ (m1_subset_1\ X1\ (u1_struct_0\ X0)) \Rightarrow & (k3_robbins1\ X0\ X1 = k3_funct_2 \\ (u1_struct_0\ X0)\ (u1_struct_0\ X0)\ (u1_robbins1\ X0)\ X1)) \end{aligned} \quad (10)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0\ X0) \wedge (l4_robbins1\ X0)) \Rightarrow & (\forall X1. \\ ((\neg v2_struct_0\ X1) \wedge (l4_robbins1\ X1)) \Rightarrow & (((g4_robbins1\ (u1_struct_0\ X0)\ (u2_lattices\ X0)\ (u1_lattices\ X0)\ (u1_robbins1\ X0) = g4_robbins1 \\ (u1_struct_0\ X1)\ (u2_lattices\ X1)\ (u1_lattices\ X1)\ (u1_robbins1\ X1)) \wedge \\ (v8_robbins3\ X0)) \Rightarrow (v8_robbins3\ X1))) \end{aligned}$$