

l6_ftacell1 (TMafhzzqnzPMu- Cuyv7hBN8QdQmH4j2MzzG7)

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Let $v1_xtuple_0 : \iota \Rightarrow o$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_msafree2 : \iota \Rightarrow \iota$ be given. Let $k13_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_msafree2 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_facirc_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 X1) \Rightarrow ((v1_facirc_1 X0) \vee (r1_xboole_0 X0 X1)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xtuple_0 X0) \Rightarrow (\forall X1. (\neg v1_xtuple_0 X1) \Rightarrow \\ & (\forall X2. (\neg v1_xtuple_0 X2) \Rightarrow (\neg v1_facirc_1 (k2_msafree2 (k13_gfacirc1 \\ & X0 X1 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. v1_relat_1 (k3_msafree2 (k13_gfacirc1 X0 X1 X2)) \quad (3)$$

Theorem 1

$$\begin{aligned} & \forall X0. (\neg v1_xtuple_0 X0) \Rightarrow (\forall X1. (\neg v1_xtuple_0 X1) \Rightarrow \\ & (\forall X2. (\neg v1_xtuple_0 X2) \Rightarrow (\forall X3. \forall X4. \forall X5. \\ & r1_xboole_0 (k2_msafree2 (k13_gfacirc1 X0 X1 X2)) (k3_msafree2 \\ & (k13_gfacirc1 X3 X4 X5)))))) \end{aligned}$$