

l58_ftacell1

(TMNhcJn2vCZVJ8Nzm1ZuGSxcvuQrkoownvx)

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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 $k37_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_msafree2 : \iota \Rightarrow \iota$ be given. Let $k25_gfacirc1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_facirc_1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xtuple_0 X0) \Rightarrow (\forall X1.(\neg v1_xtuple_0 X1) \Rightarrow \\ & (\forall X2.(\neg v1_xtuple_0 X2) \Rightarrow (\neg v1_facirc_1 (k2_msafree2 (k37_gfacirc1 \\ & \quad X0 X1 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.v1_relat_1 (k3_msafree2 (k25_gfacirc1 X0 X1 X2)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(v1_relat_1 X1) \Rightarrow ((v1_facirc_1 X0) \vee (r1_xboole_0 X0 X1)) \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xtuple_0 X0) \Rightarrow (\forall X1.(\neg v1_xtuple_0 X1) \Rightarrow \\ & (\forall X2.(\neg v1_xtuple_0 X2) \Rightarrow (\forall X3.\forall X4.\forall X5. \\ & r1_xboole_0 (k2_msafree2 (k37_gfacirc1 X0 X1 X2)) (k3_msafree2 \\ & \quad (k25_gfacirc1 X3 X4 X5)))))) \end{aligned}$$