

t2_facirc_1

(TMSkmXeCEEHjZoVtHhitaGgUg1mZuqrbD2c)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $r1_circcomb : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k3_msafree2 : \iota \Rightarrow \iota$ be given. Let $k2_circcomb : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarSKI : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_msafree2 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_msualg_1 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (l1_msualg_1 X1)) \Rightarrow ((r1_circcomb X0 X1) \Rightarrow (\\ & (k3_msafree2 (k2_circcomb X0 X1) = k2_xboole_0 (k3_msafree2 X0) \\ & (k3_msafree2 X1)) \wedge (r1_tarSKI (k2_msafree2 (k2_circcomb X0 X1)) \\ & (k2_xboole_0 (k2_msafree2 X0) (k2_msafree2 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X0) \wedge (v1_relat_1 X1)) \Rightarrow (v1_relat_1 (k2_xboole_0 X0 X1)) \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_msualg_1 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (l1_msualg_1 X1)) \Rightarrow (((r1_circcomb X0 X1) \wedge \\ & ((v1_relat_1 (k3_msafree2 X0)) \wedge (v1_relat_1 (k3_msafree2 X1)))) \Rightarrow \\ & (v1_relat_1 (k3_msafree2 (k2_circcomb X0 X1)))) \end{aligned}$$