

t1_facirc_1 (TMGqjUZs- mMq5F5KaYbU1wfmjNVyn5Aurh7D)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v2_facirc_1 : \iota \Rightarrow o$ be given. Let $v1_facirc_1 : \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xtuple_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(X1 = k10_xtuple_0 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X3 \in k9_xtuple_0 X0) \wedge (X2 = k1_funct_1 X0 X3)))) \quad (1)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow ((v2_facirc_1 X0) \Leftrightarrow (\forall X1. \neg (X1 \in k9_xtuple_0 X0) \wedge (v1_xtuple_0 (k1_funct_1 X0 X1)))) \quad (2)$$

Assume the following.

$$\forall X0.(v1_facirc_1 X0) \Leftrightarrow (\exists X1.(v1_xtuple_0 X1) \wedge (X1 \in X0)) \quad (3)$$

Theorem 1

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\neg (v2_facirc_1 X0) \wedge (v1_facirc_1 (k10_xtuple_0 X0)))$$