

t27_rewrite1

(TMS12zuNVrZHoJRfpQ9AZChEw5aoBBNZnPh)

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Let $r2_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k2_relat_1 : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_rewrite1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Assume the following.

$$k2_relat_1 \ k1_xboole_0 = k1_xboole_0 \tag{1}$$

Assume the following.

$$\forall X0.(v1_relat_1 \ k1_xboole_0) \wedge ((v5_relat_1 \ k1_xboole_0 \ X0) \wedge ((v1_funct_1 \ k1_xboole_0) \wedge (v5_ordinal1 \ k1_xboole_0))) \tag{2}$$

Assume the following.

$$\forall X0.k2_xboole_0 \ X0 \ k1_xboole_0 = X0 \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(r1_rewrite1 \ k1_xboole_0 \ X0 \ X1) \Rightarrow (X0 = X1) \tag{4}$$

Assume the following.

$$\forall X0.(v1_relat_1 \ X0) \Rightarrow (\forall X1.\forall X2.(r2_rewrite1 \ X0 \ X1 \ X2) \Leftrightarrow (r1_rewrite1 \ (k2_xboole_0 \ X0 \ (k2_relat_1 \ X0)) \ X1 \ X2)) \tag{5}$$

Assume the following.

$$k1_xboole_0 = the \ (\lambda X0 : \iota.v1_xboole_0 \ X0) \tag{6}$$

Theorem 1 $\forall X0.\forall X1.(r2_rewrite1 \ k1_xboole_0 \ X0 \ X1) \Rightarrow (X0 = X1).$