l10_numbers (TMcj3BVzxw2GE5c7dkkWmririCU7YM7RnrM)

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Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.r1\_tarski\ (k1\_tarski\ X0)\ (k2\_tarski\ X0\ X1) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(r1\_tarski\ (k1\_tarski\ X0)\ (k1\_tarski\ X1)) \Rightarrow (X0 = X1) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.k4\_tarski\ X0\ X1 = k2\_tarski\ (k2\_tarski\ X0\ X1)\ (k1\_tarski\ X0) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.k2\_tarski\ X0\ X1 = k2\_tarski\ X1\ X0 \tag{4}$$

Theorem 1

$$\forall X0.\forall X1.\forall X2.(k4\_tarski\ X0\ X1 = k1\_tarski\ X2) \Rightarrow ((X2 = k1\_tarski\ X0) \wedge (X0 = X1))$$