l39_arytm_3 (TMLTXSZvzqH1tXhQxPKuYsnuVDzN8Gwqj8f)

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Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $r1\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\neg(X0 \in X1) \wedge (v1\_xboole\_0\ X1) \tag{1}$$

Assume the following.

$$\neg v1\_xboole\_0\ np\_\_1 \tag{2}$$

Assume the following.

$$r1\_arytm\_3\ np\_\_1\ np\_\_1 \tag{3}$$

Assume the following.

$$np\_\_1 \in k4\_ordinal1 \tag{4}$$

Assume the following.

$$v1\_xboole\_0\ k1\_xboole\_0 \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \Rightarrow ((m1\_subset\_1\ X1\ X0) \Leftrightarrow (X1 \in X0))) \wedge ((v1\_xboole\_0\ X0) \Rightarrow ((m1\_subset\_1\ X1\ X0) \Leftrightarrow (v1\_xboole\_0\ X1))) \tag{6}$$

Theorem 1

$$k4\_tarski\ np\_\_1\ np\_\_1 \in ReplSep2\ (toset\ (\lambda X0 : \iota.m1\_subset\_1\ X0\ k4\_ordinal1))\ (\lambda X0 : \iota.toset\ (\lambda X1 : \iota.m1\_subset\_1\ X1\ k4\_ordinal1))\ (\lambda X0 : \iota.\lambda X1 : \iota.(r1\_arytm\_3\ X0\ X1) \wedge (X1 \neq k1\_xboole\_0))\ (\lambda X0 : \iota.\lambda X1 : \iota.k4\_tarski\ X0\ X1)$$