# t37_arytm_3 (TMV8zyn5rfyXFpF3Fcjn594deTFEnFxpWdE)

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Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_arytm\_3 : \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k6\_arytm\_3 : \iota \Rightarrow \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $r1\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow ((r1\_arytm\_3\ k1\_xboole\_0\ X0) \Rightarrow (X0 = np\_\_1)) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X1) \vee (X0 \in X1)) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_arytm\_3) \Rightarrow (\neg(\neg X0 \in k4\_ordinal1) \wedge (\forall X1.(m1\_subset\_1\ X1\ k4\_ordinal1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ k4\_ordinal1) \Rightarrow (\neg(X0 = k4\_tarski\ X1\ X2) \wedge ((r1\_arytm\_3\ X1\ X2) \wedge ((X2 \neq k1\_xboole\_0) \wedge (X2 \neq np\_\_1))))))) \tag{3}$$

Assume the following.

$$m1\_subset\_1\ k1\_xboole\_0\ k4\_ordinal1 \tag{4}$$

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1) \wedge (v3\_ordinal1\ k4\_ordinal1) \tag{5}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_arytm\_3) \Rightarrow (m1\_subset\_1\ (k6\_arytm\_3\ X0)\ k4\_ordinal1) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_arytm\_3)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k4\_ordinal1)\Rightarrow(((X0 \in k4\_ordinal1)\Rightarrow((X1 = k6\_arytm\_3\ X0)\Leftrightarrow(X1 = X0)))\wedge((\neg X0 \in k4\_ordinal1)\Rightarrow((X1 = k6\_arytm\_3\ X0)\Leftrightarrow(\exists X2.((v3\_ordinal1\ X2)\wedge(v7\_ordinal1\ X2))\wedge(X0 = k4\_tarski\ X1\ X2))))))) \tag{7}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{8}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v3\_ordinal1\ X0) \tag{9}$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1\ X0\ k5\_arytm\_3)\Rightarrow((\neg(X0 \neq k1\_xboole\_0)\wedge(k6\_arytm\_3\ X0 = k1\_xboole\_0))\wedge(\neg(k6\_arytm\_3\ X0 \neq k1\_xboole\_0)\wedge(X0 = k1\_xboole\_0)))$$