t26_arytm_3 (TMPcN-SyJWPL7v6EXUGziUJiieGtS5W3TNCZ)

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Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k4\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k6\_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $k3\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow ((k6\_ordinal3\ k1\_xboole\_0\ X0 = k1\_xboole\_0) \wedge ((k7\_ordinal3\ k1\_xboole\_0\ X0 = k1\_xboole\_0) \wedge (k7\_ordinal3\ X0\ k1\_xboole\_0 = X0))) \tag{1}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow ((r1\_arytm\_3\ k1\_xboole\_0\ X0) \Rightarrow (X0 = np\_\_1)) \tag{2}$$

Assume the following.

$$\forall X0.((v3\_ordinal1\ X0) \wedge (v7\_ordinal1\ X0)) \Rightarrow (\forall X1.((v3\_ordinal1\ X1) \wedge (v7\_ordinal1\ X1)) \Rightarrow ((\neg(X0 = k1\_xboole\_0) \wedge (X1 = k1\_xboole\_0)) \Rightarrow (r1\_arytm\_3\ (k4\_arytm\_3\ X0\ X1)\ (k4\_arytm\_3\ X1\ X0)))) \tag{3}$$

Assume the following.

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

Assume the following.

$$\forall X0.((v3\_ordinal1\ X0) \wedge (v7\_ordinal1\ X0)) \Rightarrow ((k3\_arytm\_3\ X0\ k1\_xboole\_0 = X0) \wedge (k2\_arytm\_3\ X0\ k1\_xboole\_0 = k1\_xboole\_0)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0) \wedge (v3\_ordinal1\ X1)) \Rightarrow (v3\_ordinal1\ (k6\_ordinal3\ X0\ X1)) \tag{6}$$

Assume the following.

$$\forall X0.((v3\_ordinal1\ X0)\wedge(v7\_ordinal1\ X0))\Rightarrow(\forall X1.\ ((v3\_ordinal1\ X1)\wedge(v7\_ordinal1\ X1))\Rightarrow(k4\_arytm\_3\ X0\ X1 = k6\_ordinal3\ X0\ (k3\_arytm\_3\ X0\ X1))) \tag{7}$$

Assume the following.

$$k1\_xboole\_0 = the\ (\lambda X0 : \iota.v1\_xboole\_0\ X0) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.(((v3\_ordinal1\ X0)\wedge(v7\_ordinal1\ X0))\wedge ((v3\_ordinal1\ X1)\wedge(v7\_ordinal1\ X1)))\Rightarrow(k3\_arytm\_3\ X0\ X1 = k3\_arytm\_3\ X1\ X0) \tag{9}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{10}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v3\_ordinal1\ X0) \tag{11}$$

Theorem 1

$$\forall X0.((v3\_ordinal1\ X0)\wedge(v7\_ordinal1\ X0))\Rightarrow((k4\_arytm\_3\ k1\_xboole\_0\ X0 = k1\_xboole\_0)\wedge((X0\neq k1\_xboole\_0)\Rightarrow(k4\_arytm\_3\ X0\ k1\_xboole\_0 = np\_\_1)))$$