t58_arytm_3 (TMXxkETLAcgr5eqrFe4bRo5khK9DLkVV1Ro)

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Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_arytm\_3 : \iota$ be given. Let $k9\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8\_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k8\_arytm\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k11\_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9\_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10\_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_arytm\_3 : \iota \Rightarrow \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_arytm\_3 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((v3\_ordinal1\ X0) \wedge (v7\_ordinal1\ X0)) \Rightarrow (\forall X1.\ ((v3\_ordinal1\ X1) \wedge (v7\_ordinal1\ X1)) \Rightarrow ((k8\_arytm\_3\ k1\_xboole\_0\ X0 = k1\_xboole\_0) \wedge (k8\_arytm\_3\ X1\ np\_\_1 = X1))) \tag{1}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow ((k11\_ordinal2\ np\_\_1\ X0 = X0) \wedge (k11\_ordinal2\ X0\ np\_\_1 = X0)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(((v3\_ordinal1\ X0) \wedge (v7\_ordinal1\ X0)) \wedge ((v3\_ordinal1\ X1) \wedge (v7\_ordinal1\ X1))) \Rightarrow (k9\_ordinal3\ X0\ X1 = k11\_ordinal2\ X0\ X1) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(((v3\_ordinal1\ X0) \wedge (v7\_ordinal1\ X0)) \wedge ((v3\_ordinal1\ X1) \wedge (v7\_ordinal1\ X1))) \Rightarrow (k8\_ordinal3\ X0\ X1 = k10\_ordinal2\ X0\ X1) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(v7\_ordinal1\ X1))\Rightarrow((v3\_ordinal1\ (k10\_ordinal2\ X0\ X1))\wedge(v7\_ordinal1\ (k10\_ordinal2\ X0\ X1))) \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_arytm\_3)\Rightarrow(m1\_subset\_1\ (k7\_arytm\_3\ X0)\ k4\_ordinal1) \tag{7}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_arytm\_3)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k4\_ordinal1)\Rightarrow(((X0\in k4\_ordinal1)\Rightarrow((X1=k7\_arytm\_3\ X0)\Leftrightarrow(X1=np\_\_1)))\wedge((\neg X0\in k4\_ordinal1)\Rightarrow((X1=k7\_arytm\_3\ X0)\Leftrightarrow(\exists X2.((v3\_ordinal1\ X2)\wedge(v7\_ordinal1\ X2))\wedge(X0=k4\_tarski\ X2\ X1)))))) \tag{8}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_arytm\_3)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k4\_ordinal1)\Rightarrow(((X0\in k4\_ordinal1)\Rightarrow((X1=k6\_arytm\_3\ X0)\Leftrightarrow(X1=X0)))\wedge((\neg X0\in k4\_ordinal1)\Rightarrow((X1=k6\_arytm\_3\ X0)\Leftrightarrow(\exists X2.((v3\_ordinal1\ X2)\wedge(v7\_ordinal1\ X2))\wedge(X0=k4\_tarski\ X1\ X2)))))) \tag{9}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Leftrightarrow(X0\in k4\_ordinal1) \tag{10}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_arytm\_3)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ k5\_arytm\_3)\Rightarrow(k9\_arytm\_3\ X0\ X1=k8\_arytm\_3\ (k8\_ordinal3\ (k9\_ordinal3\ (k6\_arytm\_3\ X0)\ (k7\_arytm\_3\ X1))\ (k9\_ordinal3\ (k6\_arytm\_3\ X1)\ (k7\_arytm\_3\ X0)))\ (k9\_ordinal3\ (k7\_arytm\_3\ X0)\ (k7\_arytm\_3\ X1)))) \tag{11}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{12}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v3\_ordinal1\ X0) \tag{13}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_arytm\_3)\Rightarrow((v3\_ordinal1\ X0)\Rightarrow((v3\_ordinal1\ X0)\wedge(v7\_ordinal1\ X0))) \tag{14}$$

Theorem 1

$$\forall X0.((v3\_ordinal1\ X0)\wedge(m1\_subset\_1\ X0\ k5\_arytm\_3))\Rightarrow(\forall X1.((v3\_ordinal1\ X1)\wedge(m1\_subset\_1\ X1\ k5\_arytm\_3))\Rightarrow(k9\_arytm\_3\ X0\ X1=k8\_ordinal3\ X0\ X1))$$