t38_sysrel (TMc7gJThEVSpBZTs8745TawN3qsoWzXXaoX)

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Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $k3\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_relat\_1 : \iota \Rightarrow \iota$ be given. Let $k9\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0) \Rightarrow (X0 = k1\_xboole\_0) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ X0) \Rightarrow (\forall X1.(v1\_relat\_1\ X1) \Rightarrow (\forall X2.\ (v1\_relat\_1\ X2) \Rightarrow (k3\_relat\_1\ (k3\_relat\_1\ X0\ X1)\ X2 = k3\_relat\_1\ X0\ (k3\_relat\_1\ X1\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.k6\_subset\_1\ X0\ X1 = k4\_xboole\_0\ X0\ X1 \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(v1\_relat\_1\ X0) \Rightarrow (v1\_relat\_1\ (k4\_xboole\_0\ X0\ X1)) \tag{4}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((v1\_xboole\_0\ X0) \wedge (v1\_relat\_1\ X1)) \Rightarrow ((v1\_xboole\_0\ (k3\_relat\_1\ X1\ X0)) \wedge (v1\_relat\_1\ (k3\_relat\_1\ X1\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xboole\_0\ X0) \wedge (v1\_relat\_1\ X1)) \Rightarrow ((v1\_xboole\_0\ (k3\_relat\_1\ X0\ X1)) \wedge (v1\_relat\_1\ (k3\_relat\_1\ X0\ X1))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.v1\_relat\_1\ (k3\_relat\_1\ X0\ X1) \tag{8}$$

Theorem 1

$$\forall X0.(v1\_relat\_1\ X0)\Rightarrow(\forall X1.(v1\_relat\_1\ X1)\Rightarrow((((k3\_relat\_1\ X0\ X1 = X0)\wedge(k3\_relat\_1\ X1\ (k6\_subset\_1\ X1\ (k4\_relat\_1\ (k9\_xtuple\_0\ X1))) = k1\_xboole\_0))\Rightarrow(k3\_relat\_1\ X0\ (k6\_subset\_1\ X1\ (k4\_relat\_1\ (k9\_xtuple\_0\ X1))) = k1\_xboole\_0))\wedge(((k3\_relat\_1\ X1\ X0 = X0)\wedge(k3\_relat\_1\ (k6\_subset\_1\ X1\ (k4\_relat\_1\ (k9\_xtuple\_0\ X1)))\ X1 = k1\_xboole\_0))\Rightarrow(k3\_relat\_1\ (k6\_subset\_1\ X1\ (k4\_relat\_1\ (k9\_xtuple\_0\ X1)))\ X0 = k1\_xboole\_0))))$$