t204_xxreal_1 (TMMxgGm-LyZ6vaitAnX15Wb3aDagQNd7ZiKd)

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Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_tarski : \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k3\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.k4\_xboole\_0\ X0\ (k2\_xboole\_0\ X0\ X1) = k1\_xboole\_0 \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k4\_xboole\_0\ (k2\_xboole\_0\ X0\ X1)\ X2 = k2\_xboole\_0\ (k4\_xboole\_0\ X0\ X2)\ (k4\_xboole\_0\ X1\ X2) \tag{2}$$

Assume the following.

$$\forall X0.k2\_xboole\_0\ X0\ k1\_xboole\_0 = X0 \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2.(v1\_xxreal\_0\ X2) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Rightarrow ((r1\_xxreal\_0\ X2\ X1) \vee (k2\_xboole\_0\ (k3\_xxreal\_1\ X0\ X1)\ (k4\_xxreal\_1\ X1\ X2) = k4\_xxreal\_1\ X0\ X2))))) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow ((\neg r1\_xxreal\_0\ X1\ X0) \Rightarrow (k6\_subset\_1\ (k3\_xxreal\_1\ X0\ X1)\ (k1\_tarski\ X1) = k4\_xxreal\_1\ X0\ X1))) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow ((\neg r1\_xxreal\_0\ X1\ X0) \Rightarrow (k6\_subset\_1\ (k2\_xxreal\_1\ X0\ X1)\ (k1\_tarski\ X0) = k4\_xxreal\_1\ X0\ X1))) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xxreal\_0\ X1)\Rightarrow((\neg r1\_xxreal\_0\ X1\ X0)\Rightarrow(k2\_xxreal\_1\ X0\ X1 = k2\_xboole\_0\ (k1\_tarski\ X0)\ (k4\_xxreal\_1\ X0\ X1)))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.k6\_subset\_1\ X0\ X1 = k4\_xboole\_0\ X0\ X1 \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0)\wedge(v1\_xxreal\_0\ X1))\Rightarrow((r1\_xxreal\_0\ X0\ X1)\vee(r1\_xxreal\_0\ X1\ X0)) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0\ X0\ X1 = k2\_xboole\_0\ X1\ X0 \tag{10}$$

Theorem 1

$$\forall X0.(v1\_xxreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xxreal\_0\ X1)\Rightarrow(\forall X2. (v1\_xxreal\_0\ X2)\Rightarrow(\neg(\neg r1\_xxreal\_0\ X1\ X0)\wedge((\neg r1\_xxreal\_0\ X2\ X1)\wedge (k6\_subset\_1\ (k4\_xxreal\_1\ X0\ X2)\ (k1\_tarski\ X1)\neq k2\_xboole\_0\ (k4\_xxreal\_1\ X0\ X1)\ (k4\_xxreal\_1\ X1\ X2))))))$$