t180_xxreal_1 (TMadUrmu8rfY1s4r6tAtAbAM4KAbCkeq4SQ)

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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 $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xboole\_0 : \iota$ be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Rightarrow (k4\_xxreal\_1\ X1\ X0 = k1\_xboole\_0))) \tag{1}$$

Assume the following.

$$\forall X0.k2\_xboole\_0\ X0\ k1\_xboole\_0 = X0 \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2. (v1\_xxreal\_0\ X2) \Rightarrow (\forall X3.(v1\_xxreal\_0\ X3) \Rightarrow ((r1\_xxreal\_0\ X1\ X2) \Rightarrow ((r1\_xxreal\_0\ X1\ X0) \vee ((r1\_xxreal\_0\ X3\ X2) \vee (k2\_xboole\_0\ (k3\_xxreal\_1\ X0\ X2)\ (k2\_xxreal\_1\ X1\ X3) = k4\_xxreal\_1\ X0\ X3))))))) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2. (v1\_xxreal\_0\ X2) \Rightarrow (\neg(\neg r1\_xxreal\_0\ X1\ X0) \wedge ((\neg r1\_xxreal\_0\ X2\ X1) \wedge (k2\_xboole\_0\ (k4\_xxreal\_1\ X0\ X1)\ (k2\_xxreal\_1\ X1\ X2) \neq k4\_xxreal\_1\ X0\ X2))))) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2. (v1\_xxreal\_0\ X2) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Rightarrow ((r1\_xxreal\_0\ X2\ X1) \vee (k2\_xboole\_0\ (k3\_xxreal\_1\ X0\ X1)\ (k4\_xxreal\_1\ X1\ X2) = k4\_xxreal\_1\ X0\ X2))))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0)\wedge(v1\_xxreal\_0\ X1))\Rightarrow(\\(r1\_xxreal\_0\ X0\ X1)\vee(r1\_xxreal\_0\ X1\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0\ X0\ X1 = k2\_xboole\_0\ X1\ X0 \tag{7}$$

Theorem 1

$$\forall X0.(v1\_xxreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xxreal\_0\ X1)\Rightarrow(\forall X2.\\(v1\_xxreal\_0\ X2)\Rightarrow(\forall X3.(v1\_xxreal\_0\ X3)\Rightarrow(\neg(\neg r1\_xxreal\_0\\X1\ X0)\wedge((\neg r1\_xxreal\_0\ X2\ X0)\wedge((\neg r1\_xxreal\_0\ X3\ X1)\wedge((\neg r1\_xxreal\_0\\X3\ X2)\wedge(k2\_xboole\_0\ (k2\_xboole\_0\ (k3\_xxreal\_1\ X0\ X1)\ (k4\_xxreal\_1\\X1\ X2))\ (k2\_xxreal\_1\ X2\ X3)\neq k4\_xxreal\_1\ X0\ X3)))))))) $$