t3_treal_1 (TMMx2Z4ErbPBJLoRGbsLJWH2yKKRDMEAux6)

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Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_borsuk\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_topmetr : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_topmetr : \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_pre\_topc : \iota \Rightarrow o$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $v1\_pre\_topc : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2.\ (v1\_xxreal\_0\ X2) \Rightarrow (\forall X3.(v1\_xxreal\_0\ X3) \Rightarrow (((r1\_xxreal\_0\ X0\ X1) \wedge (r1\_xxreal\_0\ X2\ X3)) \Rightarrow (r1\_tarski\ (k1\_xxreal\_1\ X1\ X2)\ (k1\_xxreal\_1\ X0\ X3))))))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2.\ (v1\_xxreal\_0\ X2) \Rightarrow (((r1\_xxreal\_0\ X0\ X1) \wedge (r1\_xxreal\_0\ X1\ X2)) \Rightarrow (r1\_xxreal\_0\ X0\ X2)))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Rightarrow (v1\_borsuk\_1\ (k4\_topmetr\ X0\ X1)\ k3\_topmetr))) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Rightarrow (u1\_struct\_0\ (k4\_topmetr\ X0\ X1) = k1\_rcomp\_1\ X0\ X1))) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_pre\_topc\ X0) \wedge (l1\_pre\_topc\ X0))) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v1\_borsuk\_1\ X1\ X0) \wedge (m1\_pre\_topc\ X1\ X0))) \Rightarrow (\forall X2.((\neg v2\_struct\_0\ X2) \wedge (m1\_pre\_topc\ X2\ X0)) \Rightarrow ((r1\_tarski\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X2)) \Rightarrow ((\neg v2\_struct\_0\ X1) \wedge ((v1\_borsuk\_1\ X1\ X2) \wedge (m1\_pre\_topc\ X1\ X2)))))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow(k1\_rcomp\_1\ X0\ X1 = k1\_xxreal\_1\ X0\ X1) \tag{6}$$

Assume the following.

$$(\neg v2\_struct\_0\ k3\_topmetr)\wedge((v1\_pre\_topc\ k3\_topmetr)\wedge(v2\_pre\_topc\ k3\_topmetr)) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow((\neg v2\_struct\_0\ (k4\_topmetr\ X0\ X1))\wedge((v1\_pre\_topc\ (k4\_topmetr\ X0\ X1))\wedge(m1\_pre\_topc\ (k4\_topmetr\ X0\ X1)\ k3\_topmetr))) \tag{8}$$

Assume the following.

$$(v2\_pre\_topc\ k3\_topmetr)\wedge(l1\_pre\_topc\ k3\_topmetr) \tag{9}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xxreal\_0\ X0) \tag{10}$$

Theorem 1

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\forall X2.(v1\_xreal\_0\ X2)\Rightarrow(\forall X3.(v1\_xreal\_0\ X3)\Rightarrow(((r1\_xxreal\_0\ X0\ X1)\wedge((r1\_xxreal\_0\ X2\ X3)\wedge(r1\_xxreal\_0\ X1\ X2)))\Rightarrow((v1\_borsuk\_1\ (k4\_topmetr\ X1\ X2)\ (k4\_topmetr\ X0\ X3))\wedge(m1\_pre\_topc\ (k4\_topmetr\ X1\ X2)\ (k4\_topmetr\ X0\ X3)))))))$$