t93_xreal_1 (TMdMvPnXVLLLmhoqpjDLfVzhfVdedAyzrBM)

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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 $k6\_numbers : \iota$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xcmplx\_0 : \iota \Rightarrow \iota$ be given. Let $k7\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ be given. Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\forall X2.\ (v1\_xreal\_0\ X2) \Rightarrow ((r1\_xxreal\_0\ (k3\_xcmplx\_0\ X1\ X0)\ X2) \Rightarrow ((r1\_xxreal\_0\ k6\_numbers\ X0) \vee (r1\_xxreal\_0\ (k7\_xcmplx\_0\ X2\ X0)\ X1))))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\forall X2.\ (v1\_xreal\_0\ X2) \Rightarrow ((r1\_xxreal\_0\ (k3\_xcmplx\_0\ X1\ X0)\ X2) \Rightarrow ((r1\_xxreal\_0\ X0\ k6\_numbers) \vee (r1\_xxreal\_0\ X1\ (k7\_xcmplx\_0\ X2\ X0)))))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\neg(\neg\ r1\_xxreal\_0\ X1\ (k4\_xcmplx\_0\ X0)) \wedge (r1\_xxreal\_0\ (k2\_xcmplx\_0\ X1\ X0)\ k6\_numbers))) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\neg(\neg\ r1\_xxreal\_0\ (k4\_xcmplx\_0\ X1)\ X0) \wedge (r1\_xxreal\_0\ k6\_numbers\ (k2\_xcmplx\_0\ X0\ X1)))) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow ((r1\_xxreal\_0\ (k4\_xcmplx\_0\ X0)\ X1) \Rightarrow (r1\_xxreal\_0\ k6\_numbers\ (k2\_xcmplx\_0\ X0\ X1)))) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0) \Rightarrow (k7\_xcmplx\_0\ k6\_numbers\ X0 = k6\_numbers) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow((\neg(\neg r1\_xxreal\_0\ k6\_numbers\ X0)\wedge (r1\_xxreal\_0\ (k4\_xcmplx\_0\ X0)\ k6\_numbers))\wedge(\neg(\neg r1\_xxreal\_0 (k4\_xcmplx\_0\ X0)\ k6\_numbers)\wedge(r1\_xxreal\_0\ k6\_numbers\ X0))) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\forall X2. (v1\_xreal\_0\ X2)\Rightarrow(\neg(r1\_xxreal\_0\ k6\_numbers\ X0)\wedge((\neg r1\_xxreal\_0 X2\ X1)\wedge(r1\_xxreal\_0\ X2\ (k6\_xcmplx\_0\ X1\ X0)))))) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(((r1\_xxreal\_0 k6\_numbers\ X0)\wedge(r1\_xxreal\_0\ k6\_numbers\ X1))\Rightarrow(r1\_xxreal\_0\ k6\_numbers (k2\_xcmplx\_0\ X0\ X1)))) \tag{9}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow((r1\_xxreal\_0 (k4\_xcmplx\_0\ X0)\ X1)\Rightarrow(r1\_xxreal\_0\ (k4\_xcmplx\_0\ X1)\ X0))) \tag{10}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow((r1\_xxreal\_0 X0\ X1)\Leftrightarrow(r1\_xxreal\_0\ (k4\_xcmplx\_0\ X1)\ (k4\_xcmplx\_0\ X0)))) \tag{11}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(k2\_xcmplx\_0\ X0\ k6\_numbers = X0) \tag{12}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(k3\_xcmplx\_0\ (k4\_xcmplx\_0\ X0)\ (k4\_xcmplx\_0 np\_\_1) = X0) \tag{13}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(k6\_xcmplx\_0\ X0\ X0 = k6\_numbers) \tag{14}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(k3\_xcmplx\_0\ X0\ (k4\_xcmplx\_0\ np\_\_1) = k4\_xcmplx\_0\ X0) \tag{15}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(((r1\_xxreal\_0 X0\ X1)\wedge(r1\_xxreal\_0\ X1\ X0))\Rightarrow(X0 = X1))) \tag{16}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\forall X2.\ (v1\_xreal\_0\ X2)\Rightarrow((r1\_xxreal\_0\ (k6\_xcmplx\_0\ X0\ X1)\ X2)\Rightarrow(r1\_xxreal\_0\ X0\ (k2\_xcmplx\_0\ X1\ X2))))) \tag{17}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\forall X2.\ (v1\_xreal\_0\ X2)\Rightarrow(((r1\_xxreal\_0\ X0\ X1)\wedge(r1\_xxreal\_0\ X1\ X2))\Rightarrow(\ r1\_xxreal\_0\ X0\ X2)))) \tag{18}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(k4\_xcmplx\_0\ (k4\_xcmplx\_0\ X0) = X0) \tag{19}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow(v1\_xreal\_0\ (k6\_xcmplx\_0\ X0\ X1)) \tag{20}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow(v1\_xreal\_0\ (k2\_xcmplx\_0\ X0\ X1)) \tag{21}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow((v1\_xcmplx\_0\ (k4\_xcmplx\_0\ X0))\wedge(v1\_xreal\_0\ (k4\_xcmplx\_0\ X0))) \tag{22}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{23}$$

Theorem 1

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(((r1\_xxreal\_0\ k6\_numbers\ X0)\wedge(r1\_xxreal\_0\ (k3\_xcmplx\_0\ (k6\_xcmplx\_0\ X1\ X0)\ (k2\_xcmplx\_0\ X1\ X0))\ k6\_numbers))\Rightarrow((r1\_xxreal\_0\ (k4\_xcmplx\_0\ X0)\ X1)\wedge(r1\_xxreal\_0\ X1\ X0))))$$