l50_xxreal_3 (TMLgNepQv5APxCost9146PoKFNe6XiCyjbf)

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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 $k1\_xxreal\_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xxreal\_0 : \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_xxreal\_0 : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $k6\_numbers : \iota$ be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow ((r1\_xxreal\_0\ X0\ k2\_xxreal\_0) \Rightarrow (X0 = k2\_xxreal\_0)) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\forall X2.(v1\_xreal\_0\ X2) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Leftrightarrow (r1\_xxreal\_0\ (k2\_xcmplx\_0\ X0\ X2)\ (k2\_xcmplx\_0\ X1\ X2))))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (r1\_xxreal\_0\ k2\_xxreal\_0\ X0) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow ((r1\_xxreal\_0\ k1\_xxreal\_0\ X0) \Rightarrow (X0 = k1\_xxreal\_0)) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (r1\_xxreal\_0\ X0\ k1\_xxreal\_0) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\neg(\neg X0 \in k1\_numbers) \wedge ((X0 \neq k1\_xxreal\_0) \wedge (X0 \neq k2\_xxreal\_0))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0)\wedge(v1\_xxreal\_0\ X1))\Rightarrow(r1\_xxreal\_0\ X0\ X0) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v1\_xreal\_0\ X0)\wedge((v1\_xreal\_0\ X1)\wedge((v1\_xcmplx\_0\ X2)\wedge(v1\_xcmplx\_0\ X3))))\Rightarrow(((X0 = X2)\wedge(X1 = X3))\Rightarrow(k1\_xxreal\_3\ X0\ X1 = k2\_xcmplx\_0\ X2\ X3)) \tag{9}$$

Assume the following.

$$v1\_xxreal\_0\ k2\_xxreal\_0 \tag{10}$$

Assume the following.

$$\neg v1\_xreal\_0\ k1\_xxreal\_0 \tag{11}$$

Assume the following.

$$v1\_xxreal\_0\ k1\_xxreal\_0 \tag{12}$$

Assume the following.

$$\neg v1\_xreal\_0\ k2\_xxreal\_0 \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0)\wedge(v1\_xxreal\_0\ X1))\Rightarrow(v1\_xxreal\_0\ (k1\_xxreal\_3\ X0\ X1)) \tag{14}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xxreal\_0\ X1)\Rightarrow(\forall X2.(v1\_xxreal\_0\ X2)\Rightarrow((((v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\Rightarrow((X2 = k1\_xxreal\_3\ X0\ X1)\Leftrightarrow(\exists X3.(v1\_xcmplx\_0\ X3)\wedge(\exists X4.(v1\_xcmplx\_0\ X4)\wedge((X0 = X3)\wedge((X1 = X4)\wedge(X2 = k2\_xcmplx\_0\ X3\ X4)))))))\wedge((((((X0 = k1\_xxreal\_0)\wedge(X1\neq k2\_xxreal\_0))\vee((X1 = k1\_xxreal\_0)\wedge(X0\neq k2\_xxreal\_0)))\Rightarrow((X2 = k1\_xxreal\_3\ X0\ X1)\Leftrightarrow(X2 = k1\_xxreal\_0)))\wedge((((((X0 = k2\_xxreal\_0)\wedge(X1\neq k1\_xxreal\_0))\vee((X1 = k2\_xxreal\_0)\wedge(X0\neq k1\_xxreal\_0)))\Rightarrow((X2 = k1\_xxreal\_3\ X0\ X1)\Leftrightarrow(X2 = k2\_xxreal\_0)))\wedge((\neg(\neg(v1\_xreal\_0\ X0)\wedge(v1\_xreal\_0\ X1))\wedge((\neg(X0 = k1\_xxreal\_0)\wedge(X1\neq k2\_xxreal\_0))\wedge((\neg(X1 = k1\_xxreal\_0)\wedge(X0\neq k2\_xxreal\_0))\wedge((\neg(X0 = k2\_xxreal\_0)\wedge(X1\neq k1\_xxreal\_0))\wedge((\neg(X1 = k2\_xxreal\_0)\wedge(X0\neq k1\_xxreal\_0))\wedge(\neg(X2 = k1\_xxreal\_3\ X0\ X1)\Leftrightarrow(X2 = k6\_numbers))))))))))) \tag{15}$$

Assume the following.

$$k1\_xxreal\_0 = k1\_numbers \tag{16}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0)\wedge(v1\_xxreal\_0\ X1))\Rightarrow(k1\_xxreal\_3\ X0\ X1 = k1\_xxreal\_3\ X1\ X0) \tag{17}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{18}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \tag{19}$$

Theorem 1

$$\forall X0.(v1\_xxreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xxreal\_0\ X1)\Rightarrow(\forall X2.\ (v1\_xxreal\_0\ X2)\Rightarrow((r1\_xxreal\_0\ X0\ X1)\Rightarrow(r1\_xxreal\_0\ (k1\_xxreal\_3\ X0\ X2)\ (k1\_xxreal\_3\ X1\ X2)))))$$