t7_real_3 (TMP4G7vXtLKrvJdYgZsLwJBVzHEVkHX9Rhn)

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Let $v1\_rat\_1 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_numbers : \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k13\_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_int\_1 : \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $k6\_real\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $v2\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $v3\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v1\_xcmplx\_0 : \iota \Rightarrow o$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_rat\_1\ X0) \Rightarrow (\exists X1.(v1\_int\_1\ X1) \wedge (\exists X2.\ (m2\_subset\_1\ X2\ k1\_numbers\ k5\_numbers) \wedge ((X2 \neq k6\_numbers) \wedge (X0 = k6\_real\_1\ X1\ X2)))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\neg(\neg\ r1\_xxreal\_0\ X0\ X1) \wedge ((\neg v2\_xxreal\_0\ X0) \wedge (\neg v3\_xxreal\_0\ X1)))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow ((r1\_xxreal\_0\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X0) \vee ((v2\_xxreal\_0\ X1) \vee (v3\_xxreal\_0\ X0))))) \tag{3}$$

Assume the following.

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

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xreal\_0\ X1) \Rightarrow (\neg(r1\_xxreal\_0\ X0\ X1) \wedge ((\neg v3\_xxreal\_0\ X0) \wedge (v3\_xxreal\_0\ X1)))) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0)\Rightarrow((r1\_xxreal\_0\ k6\_numbers\ X0)\Rightarrow(X0 \in k5\_numbers)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1)\Rightarrow(m1\_subset\_1\ X0\ X1) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(\forall X1.(v1\_xreal\_0\ X1)\Rightarrow(\neg(\neg r1\_xxreal\_0\ k6\_numbers\ X0)\wedge((\neg r1\_xxreal\_0\ X1\ k6\_numbers)\wedge(r1\_xxreal\_0\ k6\_numbers\ (k7\_xcmplx\_0\ X0\ X1))))) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ X0\ X1)\Leftrightarrow(m1\_subset\_1\ X2\ X1)) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0\ X0)\wedge(m1\_subset\_1\ X1\ k1\_numbers))\Rightarrow(k6\_real\_1\ X0\ X1 = k7\_xcmplx\_0\ X0\ X1) \tag{10}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{11}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0\ X0)\wedge(v1\_xcmplx\_0\ X1))\Rightarrow(k13\_complex1\ X0\ X1 = k7\_xcmplx\_0\ X0\ X1) \tag{13}$$

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1)\wedge(v3\_ordinal1\ k4\_ordinal1) \tag{14}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0\ X0)\Rightarrow(v1\_xboole\_0\ (k6\_xcmplx\_0\ X0\ X0)) \tag{15}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{16}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((\neg v1\_xboole\_0\ X1)\wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0))))\Rightarrow(\forall X2.(m2\_subset\_1\ X2\ X0\ X1)\Rightarrow(m1\_subset\_1\ X2\ X0)) \tag{17}$$

Assume the following.

$$m1\_subset\_1\ k5\_numbers\ (k1\_zfmisc\_1\ k1\_numbers) \tag{18}$$

Assume the following.

$$\forall X0.((v1\_xxreal\_0\ X0)\wedge((\neg v2\_xxreal\_0\ X0)\wedge(\neg v3\_xxreal\_0\ X0)))\Rightarrow((v1\_xboole\_0\ X0)\wedge(v1\_xxreal\_0\ X0)) \tag{19}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1)\Rightarrow(v7\_ordinal1\ X0) \tag{20}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(v7\_ordinal1\ X0) \tag{21}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xxreal\_0\ X0) \tag{22}$$

Assume the following.

$$\forall X0.((v1\_xxreal\_0\ X0)\wedge(v2\_xxreal\_0\ X0))\Rightarrow((\neg v1\_xboole\_0\ X0)\wedge((v1\_xxreal\_0\ X0)\wedge(\neg v3\_xxreal\_0\ X0))) \tag{23}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0)\Rightarrow(v1\_xcmplx\_0\ X0) \tag{24}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0)\Rightarrow(v1\_xreal\_0\ X0) \tag{25}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_xxreal\_0\ X0) \tag{26}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_xreal\_0\ X0) \tag{27}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\neg v3\_xxreal\_0\ X0) \tag{28}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(v1\_xreal\_0\ X0) \tag{29}$$

Assume the following.

$$\forall X0.(v1\_rat\_1\ X0)\Rightarrow(v1\_xreal\_0\ X0) \tag{30}$$

Theorem 1

$$\forall X0.(v1\_rat\_1\ X0) \Rightarrow (\neg(r1\_xxreal\_0\ k6\_numbers\ X0) \wedge (\forall X1.\ (v7\_ordinal1\ X1) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow (\neg(X2 \neq k6\_numbers) \wedge (X0 = k13\_complex1\ X1\ X2)))))$$