t33_gr_cy_3 (TMU1JJsvkArV7AdL5RXyF6gk7NLzozqgayk)

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Let $v1\_int\_1 : \iota \Rightarrow o$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_int\_2 : \iota \Rightarrow o$ be given. Let $r1\_int\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_int\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_int\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_int\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_int\_1\ X0) \Rightarrow (\forall X1.(v1\_int\_1\ X1) \Rightarrow (\forall X2.\ (v1\_int\_1\ X2) \Rightarrow ((r1\_int\_1\ X0\ X1) \Rightarrow (r1\_int\_1\ X0\ (k3\_xcmplx\_0\ X1\ X2))))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0) \Rightarrow (\forall X1.(v1\_int\_1\ X1) \Rightarrow (r1\_int\_1\ (k3\_int\_2\ X0\ X1)\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0) \Rightarrow (\forall X1.(v1\_int\_1\ X1) \Rightarrow (\forall X2.\ (v1\_int\_1\ X2) \Rightarrow ((r2\_int\_1\ X0\ X1\ X2) \Rightarrow (k3\_int\_2\ X0\ X2 = k3\_int\_2\ X1\ X2)))) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0) \Rightarrow (\forall X1.((v7\_ordinal1\ X1) \wedge (v1\_int\_2\ X1)) \Rightarrow (\neg(k3\_int\_2\ X0\ X1 = np\_\_1) \wedge (r1\_int\_1\ X1\ X0))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_int\_1\ X0) \wedge (v1\_int\_1\ X1)) \Rightarrow (v1\_int\_1\ (k3\_xcmplx\_0\ X0\ X1)) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_int\_1\ X0) \wedge (v1\_int\_1\ X1)) \Rightarrow (v7\_ordinal1\ (k3\_int\_2\ X0\ X1)) \tag{6}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v1\_int\_2\ X0)\Leftrightarrow((\neg r1\_xxreal\_0\ X0\ np\_\_1)\wedge(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(\neg(r1\_int\_1\ X1\ X0)\wedge((X1\neq np\_\_1)\wedge(X1\neq X0)))))) \tag{7}$$

Assume the following.

$$\forall X0.(v1\_int\_1\ X0)\Rightarrow(\forall X1.(v1\_int\_1\ X1)\Rightarrow((r1\_int\_2\ X0\ X1)\Leftrightarrow(k3\_int\_2\ X0\ X1 = np\_\_1))) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_int\_1\ X0)\wedge(v1\_int\_1\ X1))\Rightarrow(k3\_int\_2\ X0\ X1 = k3\_int\_2\ X1\ X0) \tag{9}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(v1\_int\_1\ X0) \tag{10}$$

Theorem 1

$$\forall X0.(v1\_int\_1\ X0)\Rightarrow(\forall X1.(v1\_int\_1\ X1)\Rightarrow(\forall X2.((v7\_ordinal1\ X2)\wedge(v1\_int\_2\ X2))\Rightarrow(((r1\_int\_2\ X0\ X2)\wedge(r2\_int\_1\ X0\ (k3\_xcmplx\_0\ X1\ X1)\ X2))\Rightarrow(r1\_int\_2\ X1\ X2))))$$