t97_matrixr2 (TMRT5su9YrgXxTNnxKoHn3awW2csJBZCGGA)

October 27, 2020

Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5\_numbers : \iota$ be given. Let $m1\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_numbers : \iota$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k11\_matrixr1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12\_matrixr1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_numbers : \iota$ be given. Let $v1\_matrixr2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_matrixr2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_matrixr2 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m1\_matrix\_1\ X1\ k1\_numbers\ X0\ X0) \Rightarrow (\neg(\neg r1\_xxreal\_0\ X0\ k6\_numbers) \wedge ((\forall X2.(m2\_finseq\_1\ X2\ k1\_numbers) \Rightarrow (\neg(k3\_finseq\_1\ X2 = X0) \wedge (\forall X3.(m2\_finseq\_1\ X3\ k1\_numbers) \Rightarrow (\neg(k3\_finseq\_1\ X3 = X0) \wedge (k11\_matrixr1\ X1\ X3 = X2))))) \wedge (\forall X2.(m1\_matrix\_1\ X2\ k1\_numbers\ X0\ X0) \Rightarrow (k1\_matrixr2\ X0\ X1\ X2 \neq k4\_matrixr2\ X0))))) \tag{1}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m1\_matrix\_1\ X1\ k1\_numbers\ X0\ X0) \Rightarrow (\neg(\forall X2.(m2\_finseq\_1\ X2\ k1\_numbers) \Rightarrow (\neg(k3\_finseq\_1\ X2 = X0) \wedge (\forall X3.(m2\_finseq\_1\ X3\ k1\_numbers) \Rightarrow (\neg(k3\_finseq\_1\ X3 = X0) \wedge (k12\_matrixr1\ X1\ X3 = X2))))) \wedge (\forall X2.(m1\_matrix\_1\ X2\ k1\_numbers\ X0\ X0) \Rightarrow (k1\_matrixr2\ X0\ X2\ X1 \neq k4\_matrixr2\ X0)))) \tag{2}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers) \Rightarrow (\forall X1.(m1\_matrix\_1\ X1\ k1\_numbers\ X0\ X0) \Rightarrow (\forall X2.(m1\_matrix\_1\ X2\ k1\_numbers\ X0\ X0) \Rightarrow (\forall X3.(m1\_matrix\_1\ X3\ k1\_numbers\ X0\ X0) \Rightarrow (((k1\_matrixr2\ X0\ X2\ X1 = k4\_matrixr2\ X0) \wedge (k1\_matrixr2\ X0\ X1\ X3 = k4\_matrixr2\ X0)) \Rightarrow ((X2 = X3) \wedge (v1\_matrixr2\ X1\ X0)))))) \tag{3}$$

Theorem 1

$$\forall X0.(m1\_subset\_1\ X0\ k5\_numbers)\Rightarrow(\forall X1.(m1\_matrix\_1\ X1\ k1\_numbers\ X0\ X0)\Rightarrow((\forall X2.(m2\_finseq\_1\ X2\ k1\_numbers)\Rightarrow(\neg(k3\_finseq\_1\ X2 = X0)\wedge(\forall X3.(m2\_finseq\_1\ X3\ k1\_numbers)\Rightarrow(\forall X4.(m2\_finseq\_1\ X4\ k1\_numbers)\Rightarrow(\neg(k3\_finseq\_1\ X3 = X0)\wedge((k3\_finseq\_1\ X4 = X0)\wedge((k11\_matrixr1\ X1\ X3 = X2)\wedge(k12\_matrixr1\ X1\ X4 = X2)))))))\Rightarrow((r1\_xxreal\_0\ X0\ k6\_numbers)\vee(v1\_matrixr2\ X1\ X0))))$$