

t80\_matrixr2  
(TMHSx9QWzQon3FJYnj4fpUPoZV81X7BVLDE)

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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  $k1\_matrixr2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_matrixr2 : \iota \Rightarrow \iota$  be given. Let  $v1\_matrixr2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_matrix\_1 X1 k1\_numbers X0 X0) \Rightarrow (k1\_matrixr2 X0 X1 (k4\_matrixr2 X0) = X1)) \quad (1)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_matrix\_1 X1 k1\_numbers X0 X0) \Rightarrow (k1\_matrixr2 X0 (k4\_matrixr2 X0) X1 = X1)) \quad (2)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_matrix\_1 X1 k1\_numbers X0 X0) \Rightarrow (\forall X2.(m1\_matrix\_1 X2 k1\_numbers X0 X0) \Rightarrow (\forall X3.(m1\_matrix\_1 X3 k1\_numbers X0 X0) \Rightarrow (k1\_matrixr2 X0 (k1\_matrixr2 X0 X1 X2) X3 = k1\_matrixr2 X0 X1 (k1\_matrixr2 X0 X2 X3)))))) \quad (3)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.(m1\_matrix\_1 X1 k1\_numbers X0 X0) \Rightarrow ((v1\_matrixr2 X1 X0) \Leftrightarrow (\exists X2.(m1\_matrix\_1 X2 k1\_numbers X0 X0) \wedge ((k1\_matrixr2 X0 X2 X1 = k4\_matrixr2 X0) \wedge (k1\_matrixr2 X0 X1 X2 = k4\_matrixr2 X0)))))) \quad (4)$$

**Theorem 1**

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