

t57_matrix10
(TMM5R5EaQ1PXRJFT9KP9dEXg7a5LR9ZT2pM)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $m1_matrix_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $r2_matrix10 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_matrix10 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m1_matrix_1 X1 k1_numbers \\ & X0 X0) \Rightarrow (\forall X2.(m1_matrix_1 X2 k1_numbers X0 X0) \Rightarrow (\forall X3. \\ & (m1_matrix_1 X3 k1_numbers X0 X0) \Rightarrow (\forall X4.(m1_matrix_1 X4 \\ & k1_numbers X0 X0) \Rightarrow ((r2_matrix10 (k4_matrix10 X0 X1 X2) (k4_matrix10 \\ & X0 X3 X4)) \Rightarrow (r2_matrix10 (k4_matrix10 X0 X1 X3) (k4_matrix10 X0 X2 \\ & X4)))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m1_matrix_1 X1 k1_numbers \\ & X0 X0) \Rightarrow (\forall X2.(m1_matrix_1 X2 k1_numbers X0 X0) \Rightarrow (\forall X3. \\ & (m1_matrix_1 X3 k1_numbers X0 X0) \Rightarrow ((r2_matrix10 (k4_matrix10 \\ & X0 X1 X2) X3) \Rightarrow (r2_matrix10 (k4_matrix10 X0 X1 X3) X2)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m1_matrix_1 X1 k1_numbers \\ & X0 X0) \Rightarrow (\forall X2.(m1_matrix_1 X2 k1_numbers X0 X0) \Rightarrow (\forall X3. \\ & (m1_matrix_1 X3 k1_numbers X0 X0) \Rightarrow ((r2_matrix10 X1 (k4_matrix10 \\ & X0 X2 X3)) \Rightarrow (r2_matrix10 X3 (k4_matrix10 X0 X2 X1)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(m1_matrix_1 X1 k1_numbers \\ & X0 X0) \Rightarrow (\forall X2.(m1_matrix_1 X2 k1_numbers X0 X0) \Rightarrow (\forall X3. \\ & (m1_matrix_1 X3 k1_numbers X0 X0) \Rightarrow ((r2_matrix10 (k4_matrix10 \\ & X0 X1 X2) (k4_matrix10 X0 X3 X2)) \Rightarrow (r2_matrix10 X1 X3)))))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(m1_matrix_1\ X1\ k1_numbers \\ & X0\ X0) \Rightarrow (\forall X2.(m1_matrix_1\ X2\ k1_numbers\ X0\ X0) \Rightarrow (\forall X3. \\ & (m1_matrix_1\ X3\ k1_numbers\ X0\ X0) \Rightarrow ((r2_matrix10\ X1\ X2) \Rightarrow (r2_matrix10 \\ & (k4_matrix10\ X0\ X1\ X3)\ (k4_matrix10\ X0\ X2\ X3)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((v7_ordinal1\ X0) \wedge ((m1_matrix_1 \\ & X1\ k1_numbers\ X0\ X0) \wedge (m1_matrix_1\ X2\ k1_numbers\ X0\ X0))) \Rightarrow (m1_matrix_1 \\ & (k4_matrix10\ X0\ X1\ X2)\ k1_numbers\ X0\ X0) \end{aligned} \quad (6)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1\ X0) \Rightarrow (\forall X1.(m1_matrix_1\ X1\ k1_numbers \\ & X0\ X0) \Rightarrow (\forall X2.(m1_matrix_1\ X2\ k1_numbers\ X0\ X0) \Rightarrow (\forall X3. \\ & (m1_matrix_1\ X3\ k1_numbers\ X0\ X0) \Rightarrow (\forall X4.(m1_matrix_1\ X4 \\ & k1_numbers\ X0\ X0) \Rightarrow ((r2_matrix10\ (k4_matrix10\ X0\ X1\ X2)\ (k4_matrix10 \\ & X0\ X3\ X4)) \Rightarrow (r2_matrix10\ (k4_matrix10\ X0\ X4\ X2)\ (k4_matrix10\ X0\ X3 \\ & X1)))))) \end{aligned}$$