

t96\_matrix10  
(TMFsvowyMtUdwu5TAxX7s1aj1s7scfjtM8E)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $m1\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_matrix10 : \iota \Rightarrow o$  be given. Let  $r1\_matrix10 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k5\_matrix10 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v4\_matrix10 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Let  $v2\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 \\ X1 k1\_numbers) \Rightarrow (\forall X2.(v7\_ordinal1 X2) \Rightarrow (\forall X3.(m1\_matrix\_1 \\ X3 k1\_numbers X2 X2) \Rightarrow (\forall X4.(m1\_matrix\_1 X4 k1\_numbers X2 \\ X2) \Rightarrow (((r1\_xxreal\_0 k6\_numbers X0) \wedge ((v4\_matrix10 X3) \wedge (r1\_matrix10 \\ X3 X4))) \Rightarrow ((r1\_xxreal\_0 X1 X0) \vee (r1\_matrix10 (k5\_matrix10 X2 X0 \\ X3) (k5\_matrix10 X2 X1 X4)))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (\forall X1.(v7\_ordinal1 \\ X1) \Rightarrow (\forall X2.(m1\_matrix\_1 X2 k1\_numbers X1 X1) \Rightarrow (\forall X3. \\ (m1\_matrix\_1 X3 k1\_numbers X1 X1) \Rightarrow ((r1\_matrix10 X2 X3) \Rightarrow ((r1\_xxreal\_0 \\ X0 k6\_numbers) \vee (r1\_matrix10 (k5\_matrix10 X1 X0 X2) (k5\_matrix10 \\ X1 X0 X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (3)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(m1\_matrix\_1 X1 k1\_numbers \\ X0 X0) \Rightarrow ((v1\_matrix10 X1) \Rightarrow (v4\_matrix10 X1))) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (( \\ (r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X0)) \Rightarrow (X0 = X1))) \quad (5)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (6)$$

Assume the following.

$$\exists X0.(v1\_xboole\_0 X0) \wedge ((v1\_xcmplx\_0 X0) \wedge ((v1\_xxreal\_0 X0) \wedge (v1\_xreal\_0 X0))) \quad (7)$$

Assume the following.

$$v3\_membered\ k1\_numbers \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow (r1\_xxreal\_0 X0 X1) \vee (r1\_xxreal\_0 X1 X0) \quad (9)$$

Assume the following.

$$\forall X0.(v3\_membered\ X0) \Rightarrow (v2\_membered\ X0) \quad (10)$$

Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (v1\_xxreal\_0\ X1)) \quad (11)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1\ X0\ k1\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ k1\_numbers) \Rightarrow (\forall X2.(v7\_ordinal1\ X2) \Rightarrow (\forall X3.(m1\_matrix\_1\ X3\ k1\_numbers\ X2\ X2) \Rightarrow (\forall X4.(m1\_matrix\_1\ X4\ k1\_numbers\ X2\ X2) \Rightarrow (((r1\_xxreal\_0\ X0\ X1) \wedge (v1\_matrix10\ X3) \wedge (r1\_matrix10\ X3\ X4)) \Rightarrow ((r1\_xxreal\_0\ X0\ k6\_numbers) \vee (r1\_matrix10\ (k5\_matrix10\ X2\ X0\ X3)\ (k5\_matrix10\ X2\ X1\ X4)))))))) \end{aligned}$$