

l16_square_1

(TMZj7ESDjmyCanmDP6EtwC2ebkyCYvMUrUf)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k3_square_1 : \iota \Rightarrow \iota$ 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 $np_1 : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_2 : \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_0 : \iota$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ (v1_xxreal_0 X2) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow \\ (r1_xxreal_0 X0 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge (\\ (\neg r1_xxreal_0 np_1 X0) \wedge (r1_xxreal_0 X0 (k3_square_1 X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$v1_xboole_0 np_0 \quad (6)$$

Assume the following.

$$\neg r1_xxreal_0 (k7_xcmplx_0 np_1 np_2) np_0 \quad (7)$$

Assume the following.

$$\neg r1_xxreal_0 \ np_1 \ (k7_xcmplx_0 \ np_1 \ np_2) \quad (8)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xreal_0 \ X0) \wedge (v1_xreal_0 \ X1)) \Rightarrow (v1_xreal_0 \ (k7_xcmplx_0 \ X0 \ X1)) \quad (10)$$

Assume the following.

$$\forall X0. (v1_xreal_0 \ X0) \Rightarrow (v1_xreal_0 \ (k3_square_1 \ X0)) \quad (11)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xxreal_0 \ X0) \wedge (v1_xxreal_0 \ X1)) \Rightarrow (r1_xxreal_0 \ X0 \ X1) \vee (r1_xxreal_0 \ X1 \ X0) \quad (12)$$

Assume the following.

$$\forall X0. (v1_xreal_0 \ X0) \Rightarrow (v1_xxreal_0 \ X0) \quad (13)$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (v1_xreal_0 \ X0) \quad (14)$$

Theorem 1

$$\forall X0. (v1_xreal_0 \ X0) \Rightarrow (\neg(\neg r1_xxreal_0 \ X0 \ k6_numbers) \wedge (\forall X1. (v1_xreal_0 \ X1) \Rightarrow (\neg(\neg r1_xxreal_0 \ X1 \ k6_numbers) \wedge (\neg r1_xxreal_0 \ X0 \ (k3_square_1 \ X1)))))$$