

t17_urysohn2 (TML- RRsk3nTAJ5Ac9HHHrA4GCLniK3EAc73y)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v6_xxreal_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k1_integra2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_measure5 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $v2_measure5 : \iota \Rightarrow o$ be given. Let $v1_measure5 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v4_measure5 : \iota \Rightarrow o$ 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. Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge ((v6_xxreal_2 X0) \wedge (m1_subset_1 \\ X0 (k1_zfmisc_1 k1_numbers)))) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow \\ ((v3_measure5 X0) \Rightarrow ((r1_xxreal_0 X1 k6_numbers) \vee (v3_measure5 \\ (k1_integra2 X0 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge ((v6_xxreal_2 X0) \wedge (m1_subset_1 \\ X0 (k1_zfmisc_1 k1_numbers)))) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow \\ ((v2_measure5 X0) \Rightarrow ((X1 = k6_numbers) \vee (v2_measure5 (k1_integra2 \\ X0 X1)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge ((v6_xxreal_2 X0) \wedge (m1_subset_1 \\ X0 (k1_zfmisc_1 k1_numbers)))) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow \\ ((v1_measure5 X0) \Rightarrow ((X1 = k6_numbers) \vee (v1_measure5 (k1_integra2 \\ X0 X1)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0.((v6_xxreal_2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers))) \Rightarrow \\ (v6_xxreal_2 (k1_integra2 X0 k6_numbers)) \end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (6)$$

Assume the following.

$$\forall X0.((v6_xxreal_2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers))) \Rightarrow (\neg(\neg v1_measure5 X0) \wedge (\neg v2_measure5 X0) \wedge (\neg v3_measure5 X0) \wedge (\neg v4_measure5 X0))) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v6_xxreal_2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)))) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow ((v4_measure5 X0) \Rightarrow ((r1_xxreal_0 k6_numbers X1) \vee (v3_measure5 (k1_integra2 X0 X1))))) \quad (8)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v6_xxreal_2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)))) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow ((v4_measure5 X0) \Rightarrow ((r1_xxreal_0 X1 k6_numbers) \vee (v4_measure5 (k1_integra2 X0 X1))))) \quad (9)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v6_xxreal_2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)))) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow ((v3_measure5 X0) \Rightarrow ((r1_xxreal_0 k6_numbers X1) \vee (v4_measure5 (k1_integra2 X0 X1))))) \quad (10)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (11)$$

Assume the following.

$$\exists X0.(v1_xboole_0 X0) \wedge ((v1_xcplx_0 X0) \wedge ((v1_xxreal_0 X0) \wedge (v1_xreal_0 X0))) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((v3_membered X0) \wedge (v1_xreal_0 X1)) \Rightarrow (m1_subset_1 (k1_integra2 X0 X1) (k1_zfmisc_1 k1_numbers)) \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow (v3_membered X0) \quad (14)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (15)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow ((v4_measure5 X0) \Rightarrow (v6_xxreal_2 X0)) \quad (16)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow ((v3_measure5 X0) \Rightarrow (v6_xxreal_2 X0)) \quad (17)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow ((v2_measure5 X0) \Rightarrow (v6_xxreal_2 X0)) \quad (18)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (19)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)) \Rightarrow ((v1_measure5 X0) \Rightarrow (v6_xxreal_2 X0)) \quad (20)$$

Theorem 1

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v6_xxreal_2 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k1_numbers)))) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow ((v6_xxreal_2 (k1_integra2 X0 X1)) \wedge (m1_subset_1 (k1_integra2 X0 X1) (k1_zfmisc_1 k1_numbers))))$$