

t2_diff_4

(TMU2m2DME1HcNt73VMJo8K16ayzziueR7Qp)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k7_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_power : \iota$ be given. Let $k8_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k5_numbers : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge ((X0 \neq np_1) \wedge \\ & ((\neg r1_xxreal_0 X1 k6_numbers) \wedge ((\neg r1_xxreal_0 X2 k6_numbers) \wedge \\ & (k2_xcmplx_0 (k5_power X0 X1) (k5_power X0 X2) \neq k5_power X0 (k3_xcmplx_0 \\ & X1 X2)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\neg(r1_xxreal_0 X0 X1) \wedge ((\neg v2_xxreal_0 X1) \wedge (v2_xxreal_0 X0)))) \quad (3)$$

Assume the following.

$$\neg r1_xxreal_0 k8_power np_2 \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$\neg r1_xxreal_0 \ np_2 \ np_1 \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers)\wedge(v1_xreal_0 \ X1))\Rightarrow(k8_real_1 \ X0 \ X1 = k3_xcmplx_0 \ X0 \ X1) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers)\wedge(v1_xreal_0 \ X1))\Rightarrow(k7_real_1 \ X0 \ X1 = k2_xcmplx_0 \ X0 \ X1) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers)\wedge(m1_subset_1 \ X1 \ k1_numbers))\Rightarrow(k6_power \ X0 \ X1 = k5_power \ X0 \ X1) \tag{9}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{10}$$

Assume the following.

$$\exists X0.(v1_xboole_0 \ X0)\wedge((v1_xcmplx_0 \ X0)\wedge((v1_xxreal_0 \ X0)\wedge(v1_xreal_0 \ X0))) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers)\wedge(v1_xreal_0 \ X1))\Rightarrow(m1_subset_1 \ (k8_real_1 \ X0 \ X1) \ k1_numbers) \tag{12}$$

Assume the following.

$$m1_subset_1 \ k8_power \ k1_numbers \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers)\wedge(m1_subset_1 \ X1 \ k1_numbers))\Rightarrow(m1_subset_1 \ (k6_power \ X0 \ X1) \ k1_numbers) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 \ X0)\wedge(v1_xxreal_0 \ X1))\Rightarrow((r1_xxreal_0 \ X0 \ X1)\vee(r1_xxreal_0 \ X1 \ X0)) \tag{15}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers)\wedge(v1_xreal_0 \ X1))\Rightarrow(k8_real_1 \ X0 \ X1 = k8_real_1 \ X1 \ X0) \tag{16}$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (17)$$

Assume the following.

$$\forall X0.((v1_xxreal_0 X0) \wedge (v2_xxreal_0 X0)) \Rightarrow ((\neg v1_xboole_0 X0) \wedge ((v1_xxreal_0 X0) \wedge (\neg v3_xxreal_0 X0))) \quad (18)$$

Assume the following.

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

Theorem 1

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 X1 k1_numbers) \Rightarrow (\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge ((\neg r1_xxreal_0 X1 k6_numbers) \wedge (k7_real_1 (k6_power k8_power X0) (k6_power k8_power X1) \neq k6_power k8_power (k8_real_1 X0 X1)))))$$