

t32_power (TMdGhUu- Lagv3udi1NkakDe1gjMBGcnZCDMB)

October 27, 2020

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 $k3_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $k9_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k5_xcmplx_0 : \iota \Rightarrow \iota$ 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 $np_0 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $k4_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\neg(\neg r1_xxreal_0 X0 X1) \wedge (\neg v3_xxreal_0 X1) \wedge (\neg v2_xxreal_0 X0)))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (((\neg r1_xxreal_0 X0 k6_numbers) \Rightarrow (k9_prepower (k10_real_1 np_1 X0) X1 = k10_real_1 np_1 (k9_prepower X0 X1)))))) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k7_xcmplx_0 k6_numbers X0 = k6_numbers) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (((\neg r1_xxreal_0 X0 k6_numbers) \Rightarrow (k3_power X0 (k4_xcmplx_0 X1) = k10_real_1 np_1 (k3_power X0 X1)))))) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (v2_xxreal_0 X0)) \Rightarrow (v2_xxreal_0 X1))) \quad (5)$$

Assume the following.

$$m1_subset_1 \ k1_xboole_0 \ k4_ordinal1 \quad (6)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 \ X0) \Rightarrow (k7_xcmplx_0 \ np_1 \ X0 = k5_xcmplx_0 \ X0) \quad (7)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & (m2_subset_1 \ np_0 \ k1_numbers \ k5_numbers) \wedge ((m1_subset_1 \ np_0 \\ & \quad k5_numbers) \wedge (m1_subset_1 \ np_0 \ k1_numbers)) \end{aligned} \quad (9)$$

Assume the following.

$$k4_xcmplx_0 \ np_0 = np_0 \quad (10)$$

Assume the following.

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

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k1_numbers) \wedge (v1_xreal_0 \ X1)) \Rightarrow (k10_real_1 \ X0 \ X1 = k7_xcmplx_0 \ X0 \ X1) \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v3_xxreal_0 \ X0) \wedge (v1_xreal_0 \ X0)) \wedge \\ & ((\neg v2_xxreal_0 \ X1) \wedge (v1_xreal_0 \ X1))) \Rightarrow (\neg v2_xxreal_0 \ (k7_xcmplx_0 \\ & \quad X0 \ X1)) \end{aligned} \quad (14)$$

Assume the following.

$$\forall X0.((v2_xxreal_0 \ X0) \wedge (v1_xreal_0 \ X0)) \Rightarrow ((v1_xcmplx_0 \ (k5_xcmplx_0 \ X0)) \wedge (v2_xxreal_0 \ (k5_xcmplx_0 \ X0))) \quad (15)$$

Assume the following.

$$\forall X0.((\neg v3_xxreal_0 \ X0) \wedge (v1_xreal_0 \ X0)) \Rightarrow ((v1_xcmplx_0 \ (k4_xcmplx_0 \ X0)) \wedge (\neg v2_xxreal_0 \ (k4_xcmplx_0 \ X0))) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xreal_0 X1))\Rightarrow(v1_xreal_0 (k9_prepower X0 X1)) \quad (17)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k1_numbers)\wedge(v1_xreal_0 X1))\Rightarrow(m1_subset_1 (k10_real_1 X0 X1) k1_numbers) \quad (19)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0)\Rightarrow(\forall X1.(v1_xreal_0 X1)\Rightarrow(\forall X2. \\ (v1_xreal_0 X2)\Rightarrow(((\neg r1_xxreal_0 X0 k6_numbers)\Rightarrow((X2 = k3_power \\ X0 X1)\Leftrightarrow(X2 = k9_prepower X0 X1)))\wedge(((X0 = k6_numbers)\Rightarrow((r1_xxreal_0 \\ X1 k6_numbers)\vee((X2 = k3_power X0 X1)\Leftrightarrow(X2 = k6_numbers))))\wedge((v1_int_1 \\ X1)\Rightarrow((X2 = k3_power X0 X1)\Leftrightarrow(\exists X3.(v1_int_1 X3)\wedge((X3 = X1)\wedge \\ (X2 = k4_prepower X0 X3)))))))))) \end{aligned} \quad (20)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers))\Rightarrow(v3_membered X0) \quad (21)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xcmplx_0 X0) \quad (22)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_numbers)\Rightarrow(\neg v3_xxreal_0 X0) \quad (23)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (24)$$

Assume the following.

$$\forall X0.(v3_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow(v1_xreal_0 X1)) \quad (25)$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_xreal_0 X0)\Rightarrow(\forall X1.(v1_xreal_0 X1)\Rightarrow((\neg r1_xxreal_0 \\ X0 k6_numbers)\Rightarrow(k3_power (k10_real_1 np_1 X0) X1 = k3_power X0 \\ (k4_xcmplx_0 X1)))) \end{aligned}$$