

t29_prepower

(TMEfy6pC2ckieyyJYBXbf9VThSz8C5w7rtx)

October 27, 2020

Let $v1_xreal_0 : \iota \Rightarrow o$ 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 $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k2_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k3_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_0 : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ 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.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ (m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow (((r1_xxreal_0 k6_numbers \\ X0) \wedge ((r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 np_1 X2))) \Rightarrow (r1_xxreal_0 \\ (k2_prepower X2 X0) (k2_prepower X2 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow ((r1_xxreal_0 np_1 X0) \Rightarrow (k3_prepower X0 np_1 = np_1)) \quad (3)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (v2_xxreal_0 X0) \Rightarrow (v2_xxreal_0 X1))) \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (((\\ r1_xxreal_0 np_1 X0) \wedge (r1_xxreal_0 np_1 X1) \Rightarrow (r1_xxreal_0 X0 \\ (k1_newton X0 X1)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$v1_xboole_0 \ np_0 \quad (7)$$

Assume the following.

$$r1_xxreal_0 \ np_0 \ np_1 \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 \ X0) \wedge ((\neg v1_xboole_0 \ X1) \wedge \\ & (m1_subset_1 \ X1 \ (k1_zfmisc_1 \ X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\ & \quad X2 \ X0 \ X1) \Leftrightarrow (m1_subset_1 \ X2 \ X1)) \end{aligned} \quad (9)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (10)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 \ X0 \ k5_numbers) \wedge (m1_subset_1 \\ & \quad X1 \ k1_numbers)) \Rightarrow (k3_prepower \ X0 \ X1 = k2_prepower \ X0 \ X1) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_xxreal_0 \ X0) \Rightarrow (\forall X1. (v7_ordinal1 \ X1) \Rightarrow ((r1_xxreal_0 \\ & \quad np_1 \ X1) \Rightarrow ((r1_xxreal_0 \ X0 \ k6_numbers) \vee ((k1_newton \ (k2_prepower \\ & \quad X1 \ X0) \ X1 = X0) \wedge (k2_prepower \ X1 \ (k1_newton \ X0 \ X1) = X0)))))) \end{aligned} \quad (13)$$

Assume the following.

$$(\neg v1_xboole_0 \ k4_ordinal1) \wedge (v3_ordinal1 \ k4_ordinal1) \quad (14)$$

Assume the following.

$$v6_membered \ k4_ordinal1 \quad (15)$$

Assume the following.

$$\neg v1_xboole_0 \ k1_numbers \quad (16)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1\ X0)\wedge(v1_xreal_0\ X1))\Rightarrow(v1_xreal_0\ (k2_prepower\ X0\ X1)) \quad (18)$$

Assume the following.

$$\forall X0.((v1_xboole_0\ X0)\wedge(v1_xxreal_0\ X0))\Rightarrow((v1_xxreal_0\ X0)\wedge((\neg v2_xxreal_0\ X0)\wedge(\neg v3_xxreal_0\ X0))) \quad (19)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0)\Rightarrow(v7_ordinal1\ X0) \quad (20)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(v1_xxreal_0\ X0) \quad (21)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(v1_xreal_0\ X0) \quad (22)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k1_numbers)\Rightarrow(v1_xreal_0\ X0) \quad (23)$$

Assume the following.

$$\forall X0.(v6_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow(v7_ordinal1\ X1)) \quad (24)$$

Theorem 1

$$\forall X0.(v1_xreal_0\ X0)\Rightarrow(\forall X1.(m2_subset_1\ X1\ k1_numbers\ k5_numbers)\Rightarrow(((r1_xxreal_0\ np_1\ X0)\wedge(r1_xxreal_0\ np_1\ X1))\Rightarrow((r1_xxreal_0\ np_1\ (k2_prepower\ X1\ X0))\wedge(r1_xxreal_0\ (k2_prepower\ X1\ X0)\ X0))))$$