

t52_prepower (TM- GAxrwT46xB38CG9CHgURfE6RsXUWLTd9N)

October 27, 2020

Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_rat_1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k6_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $k4_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_rat_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k2_rat_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow (\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge (r1_xxreal_0 (k4_prepower X0 X1) k6_numbers))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_rat_1 X0) \Rightarrow (r1_xxreal_0 np_1 (k1_rat_1 X0)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (3)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (4)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_int_1 X1)) \Rightarrow (v1_xreal_0 (k4_prepower X0 X1)) \quad (6)$$

Assume the following.

$$\neg v1_xboole_0 \ k1_numbers \quad (7)$$

Assume the following.

$$m1_subset_1 \ k5_numbers \ (k1_zfmisc_1 \ k1_numbers) \quad (8)$$

Assume the following.

$$\forall X0.(v1_rat_1 \ X0) \Rightarrow (v1_int_1 \ (k2_rat_1 \ X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 \ X0) \wedge (v1_xreal_0 \ X1)) \Rightarrow (v1_xreal_0 \ (k2_prepower \ X0 \ X1)) \quad (10)$$

Assume the following.

$$\forall X0.(v1_rat_1 \ X0) \Rightarrow (m2_subset_1 \ (k1_rat_1 \ X0) \ k1_numbers \ k5_numbers) \quad (11)$$

Assume the following.

$$\forall X0.(v1_xreal_0 \ X0) \Rightarrow (\forall X1.(v1_rat_1 \ X1) \Rightarrow (k6_prepower \ X0 \ X1 = k2_prepower \ (k1_rat_1 \ X1) \ (k4_prepower \ X0 \ (k2_rat_1 \ X1)))) \quad (12)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 \ X0) \Rightarrow (\forall X1.(v1_xreal_0 \ X1) \Rightarrow ((r1_xxreal_0 \\ np_1 \ X0) \Rightarrow (\forall X2.(v1_xreal_0 \ X2) \Rightarrow (((\neg r1_xxreal_0 \ X1 \ k6_numbers) \Rightarrow \\ ((X2 = k2_prepower \ X0 \ X1) \Leftrightarrow ((k1_newton \ X2 \ X0 = X1) \wedge (\neg r1_xxreal_0 \\ X2 \ k6_numbers)))) \wedge ((X1 = k6_numbers) \Rightarrow ((X2 = k2_prepower \ X0 \ X1) \Leftrightarrow \\ (X2 = k6_numbers))))))) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 \ X0) \quad (14)$$

Theorem 1

$$\forall X0.(v1_xreal_0 \ X0) \Rightarrow (\forall X1.(v1_rat_1 \ X1) \Rightarrow (\neg(\neg r1_xxreal_0 \ X0 \ k6_numbers) \wedge (r1_xxreal_0 \ (k6_prepower \ X0 \ X1) \ k6_numbers)))$$