

t87_prepower (TMLk- bKzgLJvC3YZBhwSm61xY5zmGoSTr8ob)

October 27, 2020

Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k9_ppower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_0 : \iota$ 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.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (((r1_xxreal_0 np_1 X0) \wedge (r1_xxreal_0 X2 X1)) \Rightarrow \\ & (r1_xxreal_0 (k9_ppower X0 X2) (k9_ppower X0 X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow ((\neg r1_xxreal_0 X0 k6_numbers) \Rightarrow (k9_ppower X0 k6_numbers = np_1)) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (3)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$(m2_subset_1 np_0 k1_numbers k5_numbers) \wedge ((m1_subset_1 np_0 k5_numbers) \wedge (m1_subset_1 np_0 k1_numbers)) \quad (6)$$

Assume the following.

$$v1_xboole_0 \ np_0 \tag{7}$$

Assume the following.

$$\neg r1_xxreal_0 \ np_1 \ np_0 \tag{8}$$

Assume the following.

$$\exists X0.(v1_xboole_0 \ X0) \wedge ((v1_xcmplx_0 \ X0) \wedge ((v1_xxreal_0 \ X0) \wedge (v1_xreal_0 \ X0))) \tag{9}$$

Assume the following.

$$\forall X0.(m2_subset_1 \ X0 \ k1_numbers \ k5_numbers) \Rightarrow ((\neg r1_xxreal_0 \ np_1 \ X0) \Rightarrow (X0 = k6_numbers)) \tag{10}$$

Assume the following.

$$\forall X0.((v1_xxreal_0 \ X0) \wedge (v2_xxreal_0 \ X0)) \Rightarrow ((\neg v1_xboole_0 \ X0) \wedge ((v1_xxreal_0 \ X0) \wedge (\neg v3_xxreal_0 \ X0))) \tag{11}$$

Assume the following.

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

Theorem 1

$$\forall X0.(v1_xreal_0 \ X0) \Rightarrow (\forall X1.(v1_xreal_0 \ X1) \Rightarrow (((r1_xxreal_0 \ np_1 \ X0) \wedge (r1_xxreal_0 \ X1 \ k6_numbers)) \Rightarrow (r1_xxreal_0 \ (k9_prepower \ X0 \ X1) \ np_1)))$$