

l22_prepower (TMVKPCKT- PuTTPm2zvGFcU8kgp2MKo8DMgFj)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ 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 $k1_newton : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge (r1_xxreal_0 (k1_newton X0 X1) k6_numbers))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v7_ordinal1 X1)) \Rightarrow (v1_xreal_0 (k1_newton X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (v1_xreal_0 (k2_prepower X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 np_1 X0) \Rightarrow (\forall X2.(v1_xreal_0 X2) \Rightarrow (((\neg r1_xxreal_0 X1 k6_numbers) \Rightarrow ((X2 = k2_prepower X0 X1) \Leftrightarrow ((k1_newton X2 X0 = X1) \wedge (\neg r1_xxreal_0 X2 k6_numbers)))) \wedge ((X1 = k6_numbers) \Rightarrow ((X2 = k2_prepower X0 X1) \Leftrightarrow (X2 = k6_numbers))))))) \quad (4)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((r1_xxreal_0 np_1 X1) \Rightarrow ((r1_xxreal_0 X0 k6_numbers) \vee ((k1_newton (k2_prepower X1 X0) X1 = X0) \wedge (k2_prepower X1 (k1_newton X0 X1) = X0))))))$$