

t44_power
(TMKiiREPqXjfGxcqn4f8Dtv6NzM11bNgwF6)

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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 $k3_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $k4_prepower : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_rat_1 X1) \Rightarrow ((\neg r1_xxreal_0 X0 k6_numbers) \Rightarrow (k9_prepower X0 X1 = k6_prepower X0 X1))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (v1_xreal_0 (k3_power X0 X1)) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (((\neg r1_xxreal_0 X0 k6_numbers) \Rightarrow ((X2 = k3_power \\ & X0 X1) \Leftrightarrow (X2 = k9_prepower X0 X1))) \wedge (((X0 = k6_numbers) \Rightarrow ((r1_xxreal_0 \\ & X1 k6_numbers) \vee ((X2 = k3_power X0 X1) \Leftrightarrow (X2 = k6_numbers)))))) \wedge ((v1_int_1 \\ & X1) \Rightarrow ((X2 = k3_power X0 X1) \Leftrightarrow (\exists X3.(v1_int_1 X3) \wedge ((X3 = X1) \wedge \\ & (X2 = k4_prepower X0 X3)))))))))) \quad (3) \end{aligned}$$

Assume the following.

$$\forall X0.(v1_rat_1 X0) \Rightarrow (v1_xreal_0 X0) \quad (4)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_rat_1 X1) \Rightarrow ((\neg r1_xxreal_0 X0 k6_numbers) \Rightarrow (k3_power X0 X1 = k6_prepower X0 X1)))$$