

t56_power
(TMb23oMtgPbkjchfsbqVzuDqtQVhK7QKUpW)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $k5_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_power : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow ((\neg r1_xxreal_0 X0 k6_numbers) \Rightarrow (k3_power (k3_power \\ & X0 X1) X2 = k3_power X0 (k3_xcmplx_0 X1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (v1_xreal_0 (k3_xcmplx_0 X0 X1)) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0) \wedge (v1_xreal_0 X1)) \Rightarrow (v1_xreal_0 (k5_power X0 X1)) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\neg(\neg \\ & r1_xxreal_0 X0 k6_numbers) \wedge ((X0 \neq np_1) \wedge ((\neg r1_xxreal_0 X1 k6_numbers) \wedge \\ & (\neg \forall X2.(v1_xreal_0 X2) \Rightarrow ((X2 = k5_power X0 X1) \Leftrightarrow (k3_power \\ & X0 X2 = X1))))))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xreal_0 X2) \Rightarrow (\neg(\neg r1_xxreal_0 X0 k6_numbers) \wedge ((X0 \neq np_1) \wedge \\ & ((\neg r1_xxreal_0 X1 k6_numbers) \wedge ((X1 \neq np_1) \wedge ((\neg r1_xxreal_0 X2 \\ & k6_numbers) \wedge (k5_power X0 X2 \neq k3_xcmplx_0 (k5_power X0 X1) (k5_power \\ & X1 X2)))))))))) \end{aligned}$$