

t55\_power  
(TMXzQ9tr3g6Bn1DAkRY496rVWYuyZFyKERx)

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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  $k3\_power : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\neg(\neg r1\_xxreal\_0 X0 k6\_numbers) \wedge (r1\_xxreal\_0 (k3\_power X0 X1) k6\_numbers))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\forall X2.(v1\_xreal\_0 X2) \Rightarrow ((\neg r1\_xxreal\_0 X0 k6\_numbers) \Rightarrow (k3\_power (k3\_power X0 X1) X2 = k3\_power X0 (k3\_xcmplx\_0 X1 X2)))))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0 X0) \wedge (v1\_xreal\_0 X1)) \Rightarrow (v1\_xreal\_0 (k3\_xcmplx\_0 X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0 X0) \wedge (v1\_xreal\_0 X1)) \Rightarrow (v1\_xreal\_0 (k5\_power X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0 X0) \wedge (v1\_xreal\_0 X1)) \Rightarrow (v1\_xreal\_0 (k3\_power X0 X1)) \quad (5)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (\neg(\neg r1\_xxreal\_0 X0 k6\_numbers) \wedge ((X0 \neq np\_1) \wedge ((\neg r1\_xxreal\_0 X1 k6\_numbers) \wedge (\neg \forall X2.(v1\_xreal\_0 X2) \Rightarrow ((X2 = k5\_power X0 X1) \Leftrightarrow (k3\_power X0 X2 = X1))))))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xcmplx\_0 X0)\wedge(v1\_xcmplx\_0 X1))\Rightarrow( k3\_xcmplx\_0 X0 X1 = k3\_xcmplx\_0 X1 X0) \quad (7)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0)\Rightarrow(v1\_xcmplx\_0 X0) \quad (8)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v1\_xreal\_0 X0)\Rightarrow(\forall X1.(v1\_xreal\_0 X1)\Rightarrow(\forall X2. \\ & (v1\_xreal\_0 X2)\Rightarrow(\neg(\neg r1\_xxreal\_0 X0 k6\_numbers)\wedge((X0\neq np\_1)\wedge \\ & ((\neg r1\_xxreal\_0 X1 k6\_numbers)\wedge(k5\_power X0 (k3\_power X1 X2)\neq k3\_xcmplx\_0 \\ & X2 (k5\_power X0 X1))))))) \end{aligned}$$