

# t37\_prepower (TMExuHg- BKrC68kybKFd5cFxpV1LAYPGLSc)

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Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $k5\_prepower : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k2\_newton : \iota \Rightarrow \iota \Rightarrow \iota$  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  $k4\_prepower : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $k2\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $k5\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_newton : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_int\_2 : \iota \Rightarrow \iota$  be given. 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. Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (k2\_newton np\_1 X0 = np\_1) \quad (1)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k1\_numbers) \wedge (v1\_int\_1 X1)) \Rightarrow (k5\_prepower X0 X1 = k4\_prepower X0 X1) \quad (3)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (4)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (k2\_real\_1 X0 = k5\_xcmplx\_0 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k1\_numbers) \wedge (v7\_ordinal1 X1)) \Rightarrow (k2\_newton X0 X1 = k1\_newton X0 X1) \quad (6)$$

Assume the following.

$$k2\_real\_1 np\_1 = np\_1 \quad (7)$$

Assume the following.

$$\forall X0.(v1\_int\_1 X0) \Rightarrow (m1\_subset\_1 (k1\_int\_2 X0) k5\_numbers) \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (((r1\_xreal\_0 \\ k6\_numbers X1) \Rightarrow (k4\_prepower X0 X1 = k1\_newton X0 (k1\_int\_2 X1))) \wedge \\ ((\neg r1\_xreal\_0 k6\_numbers X1) \Rightarrow (k4\_prepower X0 X1 = k5\_xcmplx\_0 \\ (k1\_newton X0 (k1\_int\_2 X1)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (10)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k1\_numbers) \Rightarrow (v1\_xreal\_0 X0) \quad (11)$$

**Theorem 1**  $\forall X0.(v1\_int\_1 X0) \Rightarrow (k5\_prepower np\_1 X0 = np\_1)$ .