

t35\_prepower  
(TMMNW3tmRjrDYAcf9tvd4HoKE42Gn6srpzk)

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Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k4\_prepower : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $v1\_xcmplx\_0 : \iota \Rightarrow o$  be given. Let  $k1\_newton : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k17\_complex1 : \iota \Rightarrow \iota$  be given. Let  $k6\_complex1 : \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_int\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $np\_0 : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $k1\_int\_2 : \iota \Rightarrow \iota$  be given. Let  $k16\_complex1 : \iota \Rightarrow \iota$  be given. Let  $v3\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k2\_numbers : \iota$  be given. Let  $k5\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_xcmplx\_0 X0) \Rightarrow (k1\_newton X0 np\_1 = X0) \quad (1)$$

Assume the following.

$$k17\_complex1 k6\_complex1 = np\_1 \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow ((X0 \neq k6\_numbers) \Rightarrow (k1\_int\_1 (k7\_xcmplx\_0 X0 X0) = np\_1)) \quad (3)$$

Assume the following.

$$((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \quad (4)$$

Assume the following.

$$k7\_xcmplx\_0 np\_1 np\_1 = np\_1 \quad (5)$$

Assume the following.

$$k2\_xcmplx\_0 np\_1 (k4\_xcmplx\_0 np\_1) = np\_0 \quad (6)$$

Assume the following.

$$r1\_xreal\_0 \ np\_0 \ np\_1 \tag{7}$$

Assume the following.

$$\forall X0.(v1\_int\_1 \ X0) \Rightarrow (k1\_int\_2 \ X0 = k16\_complex1 \ X0) \tag{8}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 \ X0) \Rightarrow (k17\_complex1 \ X0 = k16\_complex1 \ X0) \tag{9}$$

Assume the following.

$$k2\_xcmplx\_0 \ np\_1 \ (k4\_xcmplx\_0 \ np\_1) = k6\_numbers \tag{10}$$

Assume the following.

$$\forall X0.(v1\_xcmplx\_0 \ X0) \Rightarrow ((v1\_xreal\_0 \ (k16\_complex1 \ X0)) \wedge (\neg v3\_xreal\_0 \ (k16\_complex1 \ X0))) \tag{11}$$

Assume the following.

$$m1\_subset\_1 \ k6\_complex1 \ k2\_numbers \tag{12}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 \ X0) \Rightarrow (v1\_int\_1 \ (k1\_int\_1 \ X0)) \tag{13}$$

Assume the following.

$$k6\_complex1 = np\_1 \tag{14}$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_xreal\_0 \ X0) \Rightarrow (\forall X1.(v1\_int\_1 \ X1) \Rightarrow (((r1\_xreal\_0 \\ k6\_numbers \ X1) \Rightarrow (k4\_prepower \ X0 \ X1 = k1\_newton \ X0 \ (k1\_int\_2 \ X1))) \wedge \\ ((\neg r1\_xreal\_0 \ k6\_numbers \ X1) \Rightarrow (k4\_prepower \ X0 \ X1 = k5\_xcmplx\_0 \\ (k1\_newton \ X0 \ (k1\_int\_2 \ X1)))))) \end{aligned} \tag{15}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 \ X0) \Rightarrow (v1\_xcmplx\_0 \ X0) \tag{16}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k2\_numbers) \Rightarrow (v1\_xcmplx\_0 \ X0) \tag{17}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k1\_numbers) \Rightarrow (v1\_xreal\_0 \ X0) \tag{18}$$

**Theorem 1**  $\forall X0.(v1\_xreal\_0 \ X0) \Rightarrow (k4\_prepower \ X0 \ np\_1 = X0)$ .