

## l5\_series\_3

(TMQtKZfbotfJyhWdGNEut7XeGQft8N1ukw3)

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Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k1\_newton : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $np\_3 : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $v1\_abian : \iota \Rightarrow o$  be given. Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $np\_1 : \iota$  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  $k4\_ordinal1 : \iota$  be given. Let  $v6\_membered : \iota \Rightarrow o$  be given. Let  $v5\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 k5\_numbers) \Rightarrow \\ & ((\neg v1\_abian X1) \Rightarrow (k1\_newton (k4\_xcmplx\_0 X0) X1 = k4\_xcmplx\_0 ( \\ & \quad k1\_newton X0 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_int\_1 X0) \Rightarrow ((\neg(\neg v1\_abian X0) \wedge (\forall X1.(v1\_int\_1 \\ & X1) \Rightarrow (X0 \neq k2\_xcmplx\_0 (k3\_xcmplx\_0 np\_2 X1) np\_1))) \wedge (\neg(\exists X1. \\ & (v1\_int\_1 X1) \wedge (X0 = k2\_xcmplx\_0 (k3\_xcmplx\_0 np\_2 X1) np\_1)) \wedge \\ & \quad (v1\_abian X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_3) \wedge (m2\_subset\_1 np\_3 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_3 k5\_numbers) \wedge (m1\_subset\_1 np\_3 k1\_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$k3\_xcmplx\_0 np\_2 np\_1 = np\_2 \quad (5)$$

Assume the following.

$$k2\_xcmplx\_0 np\_2 np\_1 = np\_3 \quad (6)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (7)$$

Assume the following.

$$v6\_membered\ k4\_ordinal1 \quad (8)$$

Assume the following.

$$\forall X0.(v6\_membered\ X0) \Rightarrow (v5\_membered\ X0) \quad (9)$$

Assume the following.

$$\forall X0.(v5\_membered\ X0) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ X0) \Rightarrow (v1\_int\_1\ X1)) \quad (10)$$

**Theorem 1**

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (k1\_newton\ (k4\_xcmplx\_0\ X0)\ np\_3 = k4\_xcmplx\_0\ (k1\_newton\ X0\ np\_3))$$