

t8\_int\_7

(TMQ15gLNJR1APvLxiu8JX4pnFBLvy7eWv5Z)

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Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k10\_newton : \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_valued\_0 : \iota \Rightarrow o$  be given. Let  $v2\_pre\_poly : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_int\_2 : \iota \Rightarrow o$  be given. Let  $v1\_int\_7 : \iota \Rightarrow o$  be given. Let  $r1\_int\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_nat\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_polynom2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_newton : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v7\_ordinal1 X0) \wedge (v1\_int\_2 X0)) \Rightarrow (\forall X1.((v1\_relat\_1 \\ & X1) \wedge ((v4\_relat\_1 X1 k10\_newton) \wedge ((v1\_funct\_1 X1) \wedge ((v1\_partfun1 \\ & X1 k10\_newton) \wedge ((v4\_valued\_0 X1) \wedge (v2\_pre\_poly X1)))))) \Rightarrow ((( \\ & v1\_int\_7 X1) \wedge (r1\_int\_1 X0 (k8\_nat\_3 k10\_newton X1))) \Rightarrow (X0 \in k1\_polynom2 \\ & k10\_newton X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v7\_ordinal1 X0) \wedge (v1\_int\_2 X0)) \Rightarrow (\forall X1.((v1\_relat\_1 \\ & X1) \wedge ((v4\_relat\_1 X1 k10\_newton) \wedge ((v1\_funct\_1 X1) \wedge ((v1\_partfun1 \\ & X1 k10\_newton) \wedge ((v4\_valued\_0 X1) \wedge (v2\_pre\_poly X1)))))) \Rightarrow ((( \\ & v1\_int\_7 X1) \wedge (X0 \in k1\_polynom2 k10\_newton X1)) \Rightarrow ((r1\_int\_1 X0 ( \\ & k8\_nat\_3 k10\_newton X1) \wedge (\exists X2.(v7\_ordinal1 X2) \wedge (r1\_int\_1 \\ & (k1\_newton X0 X2) (k8\_nat\_3 k10\_newton X1)))))) \end{aligned} \tag{2}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v4\_relat\_1 X0 k10\_newton) \wedge ((v1\_funct\_1 \\ & X0) \wedge ((v1\_partfun1 X0 k10\_newton) \wedge ((v4\_valued\_0 X0) \wedge (v2\_pre\_poly \\ & X0)))))) \Rightarrow (\forall X1.((v7\_ordinal1 X1) \wedge (v1\_int\_2 X1)) \Rightarrow ((v1\_int\_7 \\ & X0) \Rightarrow ((r1\_int\_1 X1 (k8\_nat\_3 k10\_newton X0) \Leftrightarrow (X1 \in k1\_polynom2 \\ & k10\_newton X0)))) \end{aligned}$$