

t51\_newton  
(TMHRDoxo39AdJBXh3ThJw6SkoAUiNEh9NQU)

October 27, 2020

Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k6\_nat\_d : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $r1\_nat\_d : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $v1\_xboolean : \iota \Rightarrow o$  be given. Let  $k2\_xboolean : \iota$  be given. Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow ((r1\_nat\_d X0 k6\_numbers) \wedge (r1\_nat\_d np\_1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v7\_ordinal1 X0) \Rightarrow (\forall X1.(v7\_ordinal1 X1) \Rightarrow ((r1\_nat\_d X0 X1) \Rightarrow (k6\_nat\_d X0 X1 = X0))) \quad (2)$$

Assume the following.

$$v1\_xboolean k2\_xboolean \quad (3)$$

Assume the following.

$$k2\_xboolean = np\_1 \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1 X0) \wedge (v7\_ordinal1 X1)) \Rightarrow (k6\_nat\_d X0 X1 = k6\_nat\_d X1 X0) \quad (5)$$

Assume the following.

$$\forall X0.(v1\_xboolean X0) \Rightarrow (v7\_ordinal1 X0) \quad (6)$$

**Theorem 1**  $\forall X0.(v7\_ordinal1 X0) \Rightarrow (k6\_nat\_d X0 np\_1 = np\_1)$ .