t10_gr_cy_3 (TMGpeq3A2ZqigGLkgXdu7sHSLyoXTzK1kaQ)

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Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_int\_2 : \iota \Rightarrow o$ be given. Let $v1\_gr\_cy\_3 : \iota \Rightarrow o$ be given. Let $v2\_gr\_cy\_3 : \iota \Rightarrow o$ be given. Let $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_2 : \iota$ be given. Let $np\_\_1 : \iota$ be given. Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow ((v2\_gr\_cy\_3\ X0) \Leftrightarrow ((v7\_ordinal1\ (k2\_nat\_1\ (k4\_nat\_1\ np\_\_2\ X0)\ np\_\_1)) \wedge (v1\_int\_2\ (k2\_nat\_1\ (k4\_nat\_1\ np\_\_2\ X0)\ np\_\_1)))) \tag{1}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow ((v1\_gr\_cy\_3\ X0) \Leftrightarrow (\exists X1.((v7\_ordinal1\ X1) \wedge (v1\_int\_2\ X1)) \wedge (k2\_nat\_1\ (k4\_nat\_1\ np\_\_2\ X1)\ np\_\_1 = X0))) \tag{2}$$

Theorem 1

$$\forall X0.((v7\_ordinal1\ X0) \wedge ((v1\_int\_2\ X0) \wedge (v1\_gr\_cy\_3\ X0))) \Rightarrow (\exists X1.((v7\_ordinal1\ X1) \wedge ((v1\_int\_2\ X1) \wedge (v2\_gr\_cy\_3\ X1))) \wedge (X0 = k2\_nat\_1\ (k4\_nat\_1\ np\_\_2\ X1)\ np\_\_1))$$