l3_heyting3 (TMKbGVjcqiZzFMZ76CzC6Qt3exmfAuj8BaS)

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Let $np\_\_1 : \iota$ be given. Let $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ 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 $np\_\_0 : \iota$ be given. Let $k2\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$((v2\_xxreal\_0\ np\_\_1) \wedge (m2\_subset\_1\ np\_\_1\ k1\_numbers\ k5\_numbers)) \wedge ((m1\_subset\_1\ np\_\_1\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_1\ k1\_numbers)) \tag{1}$$

Assume the following.

$$(m2\_subset\_1\ np\_\_0\ k1\_numbers\ k5\_numbers) \wedge ((m1\_subset\_1\ np\_\_0\ k5\_numbers) \wedge (m1\_subset\_1\ np\_\_0\ k1\_numbers)) \tag{2}$$

Assume the following.

$$k2\_xcmplx\_0\ np\_\_0\ np\_\_1 = np\_\_1 \tag{3}$$

Assume the following.

$$\neg r1\_xxreal\_0\ np\_\_1\ np\_\_0 \tag{4}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{5}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1\ X0\ k5\_numbers) \wedge (v7\_ordinal1\ X1)) \Rightarrow (k2\_nat\_1\ X0\ X1 = k2\_xcmplx\_0\ X0\ X1) \tag{7}$$

Assume the following.

$$\forall X0.(m2\_subset\_1\ X0\ k1\_numbers\ k5\_numbers) \Rightarrow ((\neg r1\_xxreal\_0\ np\_\_1\ X0) \Rightarrow (X0 = k6\_numbers)) \tag{8}$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k4\_ordinal1) \Rightarrow (v7\_ordinal1\ X0) \tag{9}$$

Theorem 1 $np\_\_1 = k2\_nat\_1\ k6\_numbers\ np\_\_1$.