# l2_normsp_0 (TMcwgA1p4cwrUpuNrnuryViMzuBvgYSbz74)

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Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $k8\_funct\_5 : \iota$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np\_\_1 : \iota$ be given. Let $k1\_numbers : \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k8\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_numbers : \iota$ be given. Let $k4\_ordinal1 : \iota$ be given. Let $k6\_numbers : \iota$ be given. Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ X1) \Rightarrow ((v1\_funct\_1\ (k8\_funcop\_1\ X1\ X0\ X2)) \wedge ((v1\_funct\_2\ (k8\_funcop\_1\ X1\ X0\ X2)\ X0\ X1) \wedge (m1\_subset\_1\ (k8\_funcop\_1\ X1\ X0\ X2)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))))) \tag{1}$$

Assume the following.

$$\neg v1\_xboole\_0\ np\_\_1 \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5.\ ((\neg v1\_xboole\_0\ X1) \wedge ((\neg v1\_xboole\_0\ X3) \wedge (((v1\_funct\_1\ X4) \wedge ((v1\_funct\_2\ X4\ X0\ X1) \wedge (m1\_subset\_1\ X4\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1))))) \wedge ((v1\_funct\_1\ X5) \wedge ((v1\_funct\_2\ X5\ X2\ X3) \wedge (m1\_subset\_1\ X5\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X2\ X3)))))))) \Rightarrow ((r1\_funct\_2\ X0\ X1\ X2\ X3\ X4\ X5) \Leftrightarrow (X4 = X5)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ X0\ X1) \Leftrightarrow (m1\_subset\_1\ X2\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0) \wedge (m1\_subset\_1\ X2\ X0)) \Rightarrow (k8\_funcop\_1\ X0\ X1\ X2 = k2\_funcop\_1\ X1\ X2) \tag{5}$$

Assume the following.

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

Assume the following.

$$r1\_funct\_2\ np\_\_1\ np\_\_1\ np\_\_1\ k5\_numbers\ k8\_funct\_5\ (k8\_funcop\_1\ k5\_numbers\ np\_\_1\ k6\_numbers) \tag{7}$$

Assume the following.

$$(\neg v1\_xboole\_0\ k4\_ordinal1) \wedge (v3\_ordinal1\ k4\_ordinal1) \tag{8}$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((\neg v1\_xboole\_0\ X1) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)))) \Rightarrow (\forall X2.(m2\_subset\_1\ X2\ X0\ X1) \Rightarrow (m1\_subset\_1\ X2\ X0)) \tag{10}$$

Assume the following.

$$(v1\_funct\_1\ k8\_funct\_5) \wedge ((v1\_funct\_2\ k8\_funct\_5\ np\_\_1\ np\_\_1) \wedge (m1\_subset\_1\ k8\_funct\_5\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ np\_\_1\ np\_\_1)))) \tag{11}$$

Assume the following.

$$m2\_subset\_1\ k6\_numbers\ k1\_numbers\ k5\_numbers \tag{12}$$

Assume the following.

$$m1\_subset\_1\ k5\_numbers\ (k1\_zfmisc\_1\ k1\_numbers) \tag{13}$$

**Theorem 1**

$$(v1\_funct\_1\ k8\_funct\_5) \wedge ((v1\_funct\_2\ k8\_funct\_5\ np\_\_1\ k1\_numbers) \wedge (m1\_subset\_1\ k8\_funct\_5\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ np\_\_1\ k1\_numbers))))$$