

# t55\_normform (TMUTydm- FoTxim77gt75EtM9CB1K748H9HpF)

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Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_finsub\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_normform : \iota \Rightarrow \iota$  be given. Let  $k8\_normform : \iota \Rightarrow \iota$  be given. Let  $k9\_normform : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_normform : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_setwiseo : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v4\_finsub\_1 : \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_normform : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k5\_finsub\_1 (k7\_normform X0))) \Rightarrow (r1\_tarski X1 (k10\_normform X0 X1 X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Rightarrow (k2\_xboole\_0 X0 X1 = X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1\_subset\_1 X1 (k5\_finsub\_1 X0)) \wedge (m1\_subset\_1 X2 (k5\_finsub\_1 X0))) \Rightarrow (k5\_setwiseo X0 X1 X2 = k2\_xboole\_0 X1 X2) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_subset\_1 X1 (k5\_finsub\_1 (k7\_normform X0)) (k8\_normform X0)) \Rightarrow (\forall X2. (m2\_subset\_1 X2 (k5\_finsub\_1 (k7\_normform X0)) (k8\_normform X0)) \Rightarrow (k9\_normform X0 (k5\_setwiseo (k7\_normform X0) (k10\_normform X0 X1 X2) X2) = k9\_normform X0 X2)) \quad (4)$$

Assume the following.

$$\forall X0. \neg v1\_xboole\_0 (k8\_normform X0) \quad (5)$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0 (k5\_finsub\_1 X0)) \wedge (v4\_finsub\_1 (k5\_finsub\_1 X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2.(m2\_subset\_1 X2 X0 X1) \Rightarrow (m1\_subset\_1 X2 X0)) \quad (7)$$

Assume the following.

$$\forall X0.m1\_subset\_1 (k8\_normform X0) (k1\_zfmisc\_1 (k5\_finsub\_1 (k7\_normform X0))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1 X1 (k5\_finsub\_1 (k7\_normform X0))) \wedge (m1\_subset\_1 X2 (k5\_finsub\_1 (k7\_normform X0)))) \Rightarrow (m1\_subset\_1 (k10\_normform X0 X1 X2) (k5\_finsub\_1 (k7\_normform X0))) \quad (9)$$

Assume the following.

$$\forall X0.k8\_normform X0 = ReplSep (toset (\lambda X1 : \iota.m1\_subset\_1 X1 (k5\_finsub\_1 (k7\_normform X0)))) (\lambda X1 : \iota.\forall X2.(m2\_subset\_1 X2 (k2\_zfmisc\_1 (k5\_finsub\_1 X0) (k5\_finsub\_1 X0)) (k7\_normform X0)) \Rightarrow (\forall X3.(m2\_subset\_1 X3 (k2\_zfmisc\_1 (k5\_finsub\_1 X0) (k5\_finsub\_1 X0)) (k7\_normform X0)) \Rightarrow (((X2 \in X1) \wedge ((X3 \in X1) \wedge (r1\_normform (k5\_finsub\_1 X0) (k5\_finsub\_1 X0) X2 X3))) \Rightarrow (X2 = X3)))) (\lambda X1 : \iota.X1) \quad (10)$$

Assume the following.

$$\forall X0.k7\_normform X0 = ReplSep (toset (\lambda X1 : \iota.m1\_subset\_1 X1 (k2\_zfmisc\_1 (k5\_finsub\_1 X0) (k5\_finsub\_1 X0)))) (\lambda X1 : \iota.r1\_xboole\_0 (k2\_domain\_1 (k5\_finsub\_1 X0) (k5\_finsub\_1 X0) X1) (k3\_domain\_1 (k5\_finsub\_1 X0) (k5\_finsub\_1 X0) X1)) (\lambda X1 : \iota.X1) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0 X0 X1 = k2\_xboole\_0 X1 X0 \quad (12)$$

**Theorem 1**

$$\forall X0.\forall X1.(m2\_subset\_1 X1 (k5\_finsub\_1 (k7\_normform X0)) (k8\_normform X0)) \Rightarrow (k9\_normform X0 (k10\_normform X0 X1 X1) = k9\_normform X0 X1)$$