

l73_orders_1

(TMQd6pQJ4sUwnWxcLJYxZ7mYvZntjCMvMPY)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k2_relat_1 : \iota \Rightarrow \iota$ be given. Let $k2_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. k2_relat_1 (k2_zfmisc_1 X0 X1) = k2_zfmisc_1 X1 X0 \quad (1)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. (v1_relat_1 X1) \Rightarrow (k2_relat_1 (k3_xboole_0 X0 X1) = k3_xboole_0 (k2_relat_1 X0) (k2_relat_1 X1))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. v1_relat_1 (k2_zfmisc_1 X0 X1) \quad (3)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (v1_relat_1 (k2_relat_1 X0)) \quad (4)$$

Assume the following.

$$\forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. k2_wellord1 X0 X1 = k3_xboole_0 X0 (k2_zfmisc_1 X1 X1)) \quad (5)$$

Theorem 1

$$\forall X0. (v1_relat_1 X0) \Rightarrow (\forall X1. k2_relat_1 (k2_wellord1 X0 X1) = k2_wellord1 (k2_relat_1 X0) X1)$$