

## t25\_orders\_2

(TMFq5zmGdJpr5v1x7DPpAXiGt2yRtWajJC6)

October 27, 2020

Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v3\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v4\_orders\_2 : \iota \Rightarrow o$  be given. Let  $v5\_orders\_2 : \iota \Rightarrow o$  be given. Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k9\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $k2\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (1)$$

Assume the following.

$$\forall X0.k3\_xboole\_0 X0 k1\_xboole\_0 = k1\_xboole\_0 \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 X0)) \Rightarrow (k9\_subset\_1 X0 X1 X2 = k3\_xboole\_0 X1 X2) \quad (3)$$

Assume the following.

$$\forall X0.\exists X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)) \wedge (v1\_xboole\_0 X1) \quad (4)$$

Assume the following.

$$\forall X0.(l1\_struct\_0 X0) \Rightarrow (v1\_xboole\_0 (k1\_struct\_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0.(l1\_orders\_2 X0) \Rightarrow (l1\_struct\_0 X0) \quad (6)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 \\
& X0) \wedge ((v5\_orders\_2 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\
& X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X2.(m1\_subset\_1 \\
& X2 (u1\_struct\_0 X0)) \Rightarrow (k3\_orders\_2 X0 X1 X2 = k9\_subset\_1 (u1\_struct\_0 \\
& X0) (k2\_orders\_2 X0 (k6\_domain\_1 (u1\_struct\_0 X0) X2)) X1)))
\end{aligned} \tag{7}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_orders\_2 X0) \wedge ((v4\_orders\_2 \\
& X0) \wedge ((v5\_orders\_2 X0) \wedge (l1\_orders\_2 X0)))))) \Rightarrow (\forall X1.(m1\_subset\_1 \\
& X1 (u1\_struct\_0 X0)) \Rightarrow (k3\_orders\_2 X0 (k1\_struct\_0 X0) X1 = k1\_xboole\_0))
\end{aligned}$$