

t2\_latsum\_1 (TMb-  
MUu68pY7x5XUHwVVoCZN7WdtiMQ8LG9B)

October 27, 2020

Let  $l1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $r1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $u1\_orders\_2 : \iota \Rightarrow \iota$  be given. Let  $k1\_latsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $v1\_orders\_2 : \iota \Rightarrow o$  be given. Let  $k4\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. r1\_tarski X0 (k2\_xboole\_0 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X2)) \Rightarrow (r1\_tarski X0 X2) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow ((r1\_relset\_1 X0 X1 X2 X3) \Leftrightarrow (r1\_tarski X2 X3)) \quad (3)$$

Assume the following.

$$\forall X0. ((l1\_orders\_2 X0) \Rightarrow (m1\_subset\_1 (u1\_orders\_2 X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0)))))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((l1\_orders\_2 X0) \wedge (l1\_orders\_2 X1)) \Rightarrow ((v1\_orders\_2 (k1\_latsum\_1 X0 X1)) \wedge (l1\_orders\_2 (k1\_latsum\_1 X0 X1))) \quad (5)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(l1\_orders\_2 X1) \Rightarrow (\forall X2. \\
& ((v1\_orders\_2 X2) \wedge (l1\_orders\_2 X2)) \Rightarrow ((X2 = k1\_latsum\_1 X0 X1) \Leftrightarrow \\
& ((u1\_struct\_0 X2 = k2\_xboole\_0 (u1\_struct\_0 X0) (u1\_struct\_0 X1)) \wedge \\
& (u1\_orders\_2 X2 = k2\_xboole\_0 (k2\_xboole\_0 (u1\_orders\_2 X0) (u1\_orders\_2 \\
& X1)) (k4\_reset\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0) (u1\_struct\_0 \\
& X1) (u1\_struct\_0 X1) (u1\_orders\_2 X0) (u1\_orders\_2 X1))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0 X0 X1 = k2\_xboole\_0 X1 X0 \tag{7}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.(l1\_orders\_2 X0) \Rightarrow (\forall X1.(l1\_orders\_2 X1) \Rightarrow (( \\
& r1\_reset\_1 (u1\_struct\_0 X0) (u1\_struct\_0 X0) (u1\_orders\_2 X0) \\
& (u1\_orders\_2 (k1\_latsum\_1 X0 X1))) \wedge (r1\_reset\_1 (u1\_struct\_0 \\
& X1) (u1\_struct\_0 X1) (u1\_orders\_2 X1) (u1\_orders\_2 (k1\_latsum\_1 \\
& X0 X1))))
\end{aligned}$$