

## t3\_neckla\_2

(TMP5nrhDZ1jRuodEJVLYWXR3ATenqaFQisA)

October 27, 2020

Let  $k13\_classes2 : \iota$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $k4\_classes1 : \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v4\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$k13\_classes2 = k4\_classes1 \ k4\_ordinal1 \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(v3\_ordinal1 \ X0) \Rightarrow ((v4\_ordinal1 \ X0) \Rightarrow ((X0 = k1\_xboole\_0) \vee \\ (\forall X1.(X1 \in k4\_classes1 \ X0) \Leftrightarrow (\exists X2.(v3\_ordinal1 \ X2) \wedge \\ ((X2 \in X0) \wedge (X1 \in k4\_classes1 \ X2)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1 \ X0 \ X1) \tag{3}$$

Assume the following.

$$(\neg v1\_xboole\_0 \ k4\_ordinal1) \wedge (v3\_ordinal1 \ k4\_ordinal1) \tag{4}$$

Assume the following.

$$v1\_xboole\_0 \ k1\_xboole\_0 \tag{5}$$

Assume the following.

$$\begin{aligned} \forall X0.(X0 = k4\_ordinal1) \Leftrightarrow ((k1\_xboole\_0 \in X0) \wedge ((v4\_ordinal1 \\ X0) \wedge ((v3\_ordinal1 \ X0) \wedge (\forall X1.(v3\_ordinal1 \ X1) \Rightarrow (((k1\_xboole\_0 \in \\ X1) \wedge (v4\_ordinal1 \ X1)) \Rightarrow (r1\_tarski \ X0 \ X1)))))) \end{aligned} \tag{6}$$

Assume the following.

$$\forall X0.(m1\_subset\_1 \ X0 \ k4\_ordinal1) \Rightarrow (v7\_ordinal1 \ X0) \tag{7}$$

Assume the following.

$$\forall X0.(v7\_ordinal1 \ X0) \Rightarrow (\forall X1.(m1\_subset\_1 \ X1 \ (k4\_classes1 \\ X0)) \Rightarrow (v1\_finset\_1 \ X1)) \tag{8}$$

**Theorem 1**  $\forall X0.(X0 \in k13\_classes2) \Rightarrow (v1\_finset\_1 \ X0).$