

# t10\_measure4 (TMVTT- TEUq7BofSqHUFGhk4wD4a3uqqJDUEy)

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Let  $m1\_measure4 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_measure4 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_setfam\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v3\_finsub\_1 : \iota \Rightarrow o$  be given. Let  $v2\_finsub\_1 : \iota \Rightarrow o$  be given. Let  $v1\_prob\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (m1\_measure4 X3 X0) \Rightarrow \\ & (((X1 \in k1\_measure4 X0 X3) \wedge (X2 \in k1\_measure4 X0 X3)) \Rightarrow (k3\_xboole\_0 \\ & \quad X1 X2 \in k1\_measure4 X0 X3)) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1\_measure4 X2 X1) \Rightarrow ((X0 \in k1\_measure4 X1 X2) \Rightarrow (k6\_subset\_1 X1 X0 \in k1\_measure4 X1 X2)) \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. k1\_setfam\_1 (k2\_tarski X0 X1) = k3\_xboole\_0 X0 X1 \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. k6\_subset\_1 X0 X1 = k4\_xboole\_0 X0 X1 \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1\_measure4 X1 X0) \Rightarrow ((\neg v1\_xboole\_0 (k1\_measure4 \\ & X0 X1)) \wedge (m1\_subset\_1 (k1\_measure4 X0 X1) (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ & \quad X0)))) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0. (v3\_finsub\_1 X0) \Leftrightarrow (\forall X1. \forall X2. ((X1 \in X0) \wedge (X2 \in X0)) \Rightarrow (k6\_subset\_1 X1 X2 \in X0)) \tag{6}$$

Assume the following.

$$\forall X0.(v2\_finsub\_1 X0) \Leftrightarrow (\forall X1.\forall X2.((X1 \in X0) \wedge (X2 \in X0)) \Rightarrow (k3\_xboole\_0 X1 X2 \in X0)) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \Rightarrow ((v1\_prob\_1 X1 X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Rightarrow (k6\_subset\_1 X0 X2 \in X1))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \Rightarrow (((v2\_finsub\_1 X1) \wedge (v1\_prob\_1 X1 X0)) \Rightarrow (v3\_finsub\_1 X1)) \quad (9)$$

**Theorem 1**

$$\forall X0.\forall X1.\forall X2.\forall X3.(m1\_measure4 X3 X0) \Rightarrow (((X1 \in k1\_measure4 X0 X3) \wedge (X2 \in k1\_measure4 X0 X3)) \Rightarrow (k6\_subset\_1 X1 X2 \in k1\_measure4 X0 X3))$$