

## t22\_measure2

(TMUWx8piXBFL4o9BGVUTt6ANZ4i7GKgGHFc)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_prob\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_prob\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k2\_nat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k3\_measure1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_measure1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v2\_finsub\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finsub\_1 : \iota \Rightarrow o$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v3\_measure1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Rightarrow (X1 = k2\_xboole\_0 X0 (k4\_xboole\_0 X1 X0)) \quad (1)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 \\ & X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1\_xboole\_0 \\ & X1)\wedge((v2\_finsub\_1 X1)\wedge((v1\_prob\_1 X1 X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k1\_zfmisc\_1 X0))))))\wedge((m1\_subset\_1 X2 X1)\wedge(m1\_subset\_1 X3 X1)))\Rightarrow \\ & (k3\_measure1 X0 X1 X2 X3 = k4\_xboole\_0 X2 X3) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1\_xboole\_0 \\ & X1)\wedge((v1\_finsub\_1 X1)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ & X0))))\wedge((m1\_subset\_1 X2 X1)\wedge(m1\_subset\_1 X3 X1)))\Rightarrow(k1\_measure1 \\ & X0 X1 X2 X3 = k2\_xboole\_0 X2 X3) \end{aligned} \quad (6)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1)\wedge(v3\_ordinal1 k4\_ordinal1) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((v1\_funct\_1 X1)\wedge((v1\_funct\_2 \\ & X1 k5\_numbers X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers \\ & X0))))\wedge(v7\_ordinal1 X2))\Rightarrow(m1\_subset\_1 (k8\_nat\_1 X0 X1 X2) X0) \end{aligned} \quad (8)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1\_xboole\_0 \\ & X1)\wedge((v2\_finsub\_1 X1)\wedge((v1\_prob\_1 X1 X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ & (k1\_zfmisc\_1 X0))))))\wedge((m1\_subset\_1 X2 X1)\wedge(m1\_subset\_1 X3 X1)))\Rightarrow \\ & (m2\_subset\_1 (k3\_measure1 X0 X1 X2 X3) (k1\_zfmisc\_1 X0) X1) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_subset\_1 X0 k5\_numbers)\wedge(v7\_ordinal1 X1))\Rightarrow(m2\_subset\_1 (k2\_nat\_1 X0 X1) k1\_numbers k5\_numbers) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0 X0 X1 = k2\_xboole\_0 X1 X0 \quad (12)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1)\Rightarrow(v7\_ordinal1 X0) \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ X0)))\Rightarrow(((\neg v1\_xboole\_0 X1)\wedge((v1\_prob\_1 X1 X0)\wedge(v3\_measure1 X1 \\ X0)))\Rightarrow((\neg v1\_xboole\_0 X1)\wedge(v1\_finsub\_1 X1))) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ X0)))\Rightarrow(((v1\_prob\_1 X1 X0)\wedge(v4\_prob\_1 X1 X0))\Rightarrow(v3\_measure1 X1 \\ X0)) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1\_xboole\_0 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 \\ X0))\Rightarrow(v1\_xboole\_0 X1)) \end{aligned} \quad (16)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ X0)))\Rightarrow(((v1\_finsub\_1 X1)\wedge(v1\_prob\_1 X1 X0))\Rightarrow(v2\_finsub\_1 X1)) \end{aligned} \quad (17)$$

### Theorem 1

$$\begin{aligned} \forall X0.\forall X1.((\neg v1\_xboole\_0 X1)\wedge((v1\_prob\_1 X1 X0)\wedge \\ ((v4\_prob\_1 X1 X0)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ X0))))))\Rightarrow(\forall X2.((v1\_funct\_1 X2)\wedge((v1\_funct\_2 X2 k5\_numbers \\ X1)\wedge(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X1))))))\Rightarrow \\ (\forall X3.((v1\_funct\_1 X3)\wedge((v1\_funct\_2 X3 k5\_numbers X1)\wedge \\ (m1\_subset\_1 X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X1))))))\Rightarrow \\ (((k8\_nat\_1 X1 X3 k6\_numbers = k8\_nat\_1 X1 X2 k6\_numbers)\wedge(\forall X4. \\ (m2\_subset\_1 X4 k1\_numbers k5\_numbers)\Rightarrow((k8\_nat\_1 X1 X3 (k2\_nat\_1 \\ X4 np\_1) = k3\_measure1 X0 X1 (k8\_nat\_1 X1 X2 (k2\_nat\_1 X4 np\_1)) \\ (k8\_nat\_1 X1 X2 X4))\wedge(r1\_tarski (k8\_nat\_1 X1 X2 X4) (k8\_nat\_1 X1 \\ X2 (k2\_nat\_1 X4 np\_1))))))\Rightarrow((k8\_nat\_1 X1 X2 k6\_numbers = k8\_nat\_1 \\ X1 X3 k6\_numbers)\wedge(\forall X4.(m2\_subset\_1 X4 k1\_numbers k5\_numbers)\Rightarrow \\ (k8\_nat\_1 X1 X2 (k2\_nat\_1 X4 np\_1) = k1\_measure1 X0 X1 (k8\_nat\_1 \\ X1 X3 (k2\_nat\_1 X4 np\_1)) (k8\_nat\_1 X1 X2 X4)))))) \end{aligned}$$