

t18\_measure6  
(TMWD2PLeaEiqmZyp3Cpwithg57aBc5DbfGm)

October 27, 2020

Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v6\_xxreal\_2 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $v3\_measure5 : \iota \Rightarrow o$  be given. Let  $k2\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_supinf\_2 : \iota \Rightarrow \iota$  be given. Let  $k8\_supinf\_2 : \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k7\_numbers : \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $k3\_rcomp\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow ((r1\_xxreal\_0 X0 X1) \Rightarrow (k2\_xxreal\_1 X1 X0 = k1\_xboole\_0))) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1\_xboole\_0 X0) \wedge ((v6\_xxreal\_2 X0) \wedge (m1\_subset\_1 \\ X0 (k1\_zfmisc\_1 k1\_numbers)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 k7\_numbers) \Rightarrow \\ ((\exists X2.(m1\_subset\_1 X2 k7\_numbers) \wedge ((r1\_xxreal\_0 X2 X1) \wedge \\ (X0 = k2\_xxreal\_1 X2 X1))) \Rightarrow (X1 = k8\_supinf\_2 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1\_xboole\_0 X0) \wedge ((v6\_xxreal\_2 X0) \wedge (m1\_subset\_1 \\ X0 (k1\_zfmisc\_1 k1\_numbers)))) \Rightarrow (\forall X1.(m1\_subset\_1 X1 k7\_numbers) \Rightarrow \\ ((\exists X2.(m1\_subset\_1 X2 k7\_numbers) \wedge ((r1\_xxreal\_0 X1 X2) \wedge \\ (X0 = k2\_xxreal\_1 X1 X2))) \Rightarrow (X1 = k7\_supinf\_2 X0))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xreal\_0 X0) \wedge (v1\_xreal\_0 X1)) \Rightarrow (k3\_rcomp\_1 X0 X1 = k2\_xxreal\_1 X0 X1) \quad (5)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers)) \Rightarrow ((v3\_measure5 X0) \Leftrightarrow (\exists X1.(v1\_xreal\_0 X1) \wedge (\exists X2.(m1\_subset\_1 X2 k7\_numbers) \wedge (X0 = k3\_rcomp\_1 X1 X2)))) \quad (6)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Leftrightarrow (X0 \in k7\_numbers) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow ((r1\_xxreal\_0 X0 X1) \vee (r1\_xxreal\_0 X1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xxreal\_0 X0) \quad (9)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (v1\_xxreal\_0 X0) \quad (10)$$

**Theorem 1**

$$\forall X0.((\neg v1\_xboole\_0 X0) \wedge ((v6\_xxreal\_2 X0) \wedge (m1\_subset\_1 X0 (k1\_zfmisc\_1 k1\_numbers)))) \Rightarrow ((v3\_measure5 X0) \Rightarrow (X0 = k2\_xxreal\_1 (k7\_supinf\_2 X0) (k8\_supinf\_2 X0)))$$