

t10\_extreal2 (TMWNttG-  
wQLMJzKtf7W3WeAKCDncsdhwUZpc)

October 27, 2020

Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k7\_numbers : \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_extreal1 : \iota \Rightarrow \iota$  be given. Let  $k2\_supinf\_2 : \iota \Rightarrow \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $k2\_xxreal\_3 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow ((r1\_xxreal\_0 (k2\_supinf\_2 (k3\_extreal1 X0)) X0) \wedge (r1\_xxreal\_0 X0 (k3\_extreal1 X0))) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((r1\_xxreal\_0 X0 X1) \Leftrightarrow (r1\_xxreal\_0 (k2\_xxreal\_3 X1) (k2\_xxreal\_3 X0)))) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2.(v1\_xxreal\_0 X2) \Rightarrow ((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X2)) \Rightarrow (r1\_xxreal\_0 X0 X2)))) \quad (3)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow ((k3\_extreal1 X0 = X0) \vee (k3\_extreal1 X0 = k2\_supinf\_2 X0)) \quad (4)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((r1\_xxreal\_0 X0 X1) \wedge (r1\_xxreal\_0 X1 X0)) \Rightarrow (X0 = X1)) \quad (5)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (k2\_supinf\_2 X0 = k2\_xxreal\_3 X0) \quad (6)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (k3\_extreal1 (k3\_extreal1 X0) = k3\_extreal1 X0) \quad (7)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (k2\_xxreal\_3 (k2\_xxreal\_3 X0) = X0) \quad (8)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (m1\_subset\_1 (k3\_extreal1 X0) k7\_numbers) \quad (9)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (m1\_subset\_1 (k2\_supinf\_2 X0) k7\_numbers) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow (r1\_xxreal\_0 X0 X1) \vee (r1\_xxreal\_0 X1 X0) \quad (11)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (v1\_xxreal\_0 X0) \quad (12)$$

**Theorem 1**

$$\forall X0.(m1\_subset\_1 X0 k7\_numbers) \Rightarrow (\forall X1.(m1\_subset\_1 X1 k7\_numbers) \Rightarrow ((\neg r1\_xxreal\_0 X1 (k3\_extreal1 X0)) \Rightarrow ((\neg r1\_xxreal\_0 X0 (k2\_supinf\_2 X1)) \wedge (\neg r1\_xxreal\_0 X1 X0))))$$