

t91\_rinfsup1  
(TMGTJoe26b75D4domwsAomoKKaLJ7JzqX6z)

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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  $k1\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_comseq\_2 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_seq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_rinfsup1 : \iota \Rightarrow \iota$  be given. Let  $k6\_rinfsup1 : \iota \Rightarrow \iota$  be given. Let  $k4\_rinfsup1 : \iota \Rightarrow \iota$  be given. Let  $k3\_rinfsup1 : \iota \Rightarrow \iota$  be given. Let  $v2\_comseq\_2 : \iota \Rightarrow o$  be given. Let  $k2\_seq\_2 : \iota \Rightarrow \iota$  be given. Let  $k2\_rinfsup1 : \iota \Rightarrow \iota$  be given. Let  $k1\_rinfsup1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\
& (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))) \Rightarrow \\
& (\forall X1.((v1\_funct\_1 X1) \wedge ((v1\_funct\_2 X1 k5\_numbers k1\_numbers) \wedge \\
& (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))) \Rightarrow \\
& (((v1\_comseq\_2 X0) \wedge ((v1\_comseq\_2 X1) \wedge (\forall X2.(m2\_subset\_1 \\
& X2 k1\_numbers k5\_numbers) \Rightarrow (r1\_xxreal\_0 (k1\_seq\_1 X0 X2) (k1\_seq\_1 \\
& X1 X2)))) \Rightarrow ((\forall X2.(m2\_subset\_1 X2 k1\_numbers k5\_numbers) \Rightarrow \\
& (r1\_xxreal\_0 (k1\_seq\_1 (k4\_rinfsup1 X0) X2) (k1\_seq\_1 (k4\_rinfsup1 \\
& X1) X2))) \wedge (\forall X2.(m2\_subset\_1 X2 k1\_numbers k5\_numbers) \Rightarrow \\
& (r1\_xxreal\_0 (k1\_seq\_1 (k3\_rinfsup1 X0) X2) (k1\_seq\_1 (k3\_rinfsup1 \\
& X1) X2))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\
& (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))) \Rightarrow \\
& ((v1\_comseq\_2 X0) \Rightarrow ((v2\_comseq\_2 (k4\_rinfsup1 X0)) \wedge (k2\_seq\_2 \\
& (k4\_rinfsup1 X0) = k2\_rinfsup1 (k4\_rinfsup1 X0))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\
& (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow \\
& ((v1\_comseq\_2 X0) \Rightarrow ((v2\_comseq\_2 (k3\_rinf sup1 X0)) \wedge (k2\_seq\_2 \\
& (k3\_rinf sup1 X0) = k1\_rinf sup1 (k3\_rinf sup1 X0))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\
& (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow \\
& (\forall X1.((v1\_funct\_1 X1) \wedge ((v1\_funct\_2 X1 k5\_numbers k1\_numbers) \wedge \\
& (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow \\
& (((v2\_comseq\_2 X0) \wedge ((v2\_comseq\_2 X1) \wedge (\forall X2.(m2\_subset\_1 \\
& X2 k1\_numbers k5\_numbers) \Rightarrow (r1\_xxreal\_0 (k1\_seq\_1 X0 X2) (k1\_seq\_1 \\
& X1 X2)))))) \Rightarrow (r1\_xxreal\_0 (k2\_seq\_2 X0) (k2\_seq\_2 X1)))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\
& (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow \\
& ((v1\_funct\_1 (k4\_rinf sup1 X0)) \wedge ((v1\_funct\_2 (k4\_rinf sup1 X0) \\
& k5\_numbers k1\_numbers) \wedge (m1\_subset\_1 (k4\_rinf sup1 X0) (k1\_zfmisc\_1 \\
& (k2\_zfmisc\_1 k5\_numbers k1\_numbers))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\
& (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow \\
& ((v1\_funct\_1 (k3\_rinf sup1 X0)) \wedge ((v1\_funct\_2 (k3\_rinf sup1 X0) \\
& k5\_numbers k1\_numbers) \wedge (m1\_subset\_1 (k3\_rinf sup1 X0) (k1\_zfmisc\_1 \\
& (k2\_zfmisc\_1 k5\_numbers k1\_numbers))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\
& (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow \\
& (k6\_rinf sup1 X0 = k1\_rinf sup1 (k3\_rinf sup1 X0))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\
& (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow \\
& (k5\_rinf sup1 X0 = k2\_rinf sup1 (k4\_rinf sup1 X0))
\end{aligned} \tag{8}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v1\_funct\_1 X0) \wedge ((v1\_funct\_2 X0 k5\_numbers k1\_numbers) \wedge \\ & (m1\_subset\_1 X0 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow \\ & (\forall X1.((v1\_funct\_1 X1) \wedge ((v1\_funct\_2 X1 k5\_numbers k1\_numbers) \wedge \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers k1\_numbers)))))) \Rightarrow \\ & (((v1\_comseq\_2 X0) \wedge ((v1\_comseq\_2 X1) \wedge (\forall X2.(m2\_subset\_1 \\ & X2 k1\_numbers k5\_numbers) \Rightarrow (r1\_xxreal\_0 (k1\_seq\_1 X0 X2) (k1\_seq\_1 \\ & X1 X2)))))) \Rightarrow ((r1\_xxreal\_0 (k5\_rinf sup1 X0) (k5\_rinf sup1 X1)) \wedge \\ & (r1\_xxreal\_0 (k6\_rinf sup1 X0) (k6\_rinf sup1 X1)))) \end{aligned}$$