

l34_integr19

(TMaizP9iR83xZHrFogGKqB557chG2tHdr5S)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_integr15 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_integra5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_integra5 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_nfcont_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_integr15 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_euclid : \iota \Rightarrow \iota$ be given. Let $k12_integr15 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_integra5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xxreal_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xxreal_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_comseq_2 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\
 & (v1_xreal_0 X2) \Rightarrow (\forall X3.(v1_xreal_0 X3) \Rightarrow (\forall X4.((\neg \\
 & v1_xboole_0 X4) \wedge (m2_subset_1 X4 k1_numbers k5_numbers)) \Rightarrow (\forall X5. \\
 & ((v1_funct_1 X5) \wedge (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers \\
 & (k1_euclid X4)))))) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (r1_integr15 X4 (k3_integra5 \\
 & X0 X1) X5) \wedge ((r1_integra5 (k3_integra5 X0 X1) (k1_nfcont_4 X4 k1_numbers \\
 & X5)) \wedge ((v3_integr15 (k2_partfun1 k1_numbers (k1_euclid X4) X5 \\
 & (k3_integra5 X0 X1)) X4) \wedge ((r1_tarski (k3_integra5 X0 X1) (k1_relset_1 \\
 & k1_numbers X5)) \wedge ((X2 \in k3_integra5 X0 X1) \wedge (X3 \in k3_integra5 X0 X1)))))) \Rightarrow \\
 & ((r1_integra5 (k3_integra5 (k3_xxreal_0 X2 X3) (k4_xxreal_0 X2 \\
 & X3)) (k1_nfcont_4 X4 k1_numbers X5)) \wedge ((v1_comseq_2 (k2_partfun1 \\
 & k1_numbers k1_numbers (k1_nfcont_4 X4 k1_numbers X5) (k3_integra5 \\
 & (k3_xxreal_0 X2 X3) (k4_xxreal_0 X2 X3)))) \wedge (r1_xxreal_0 (k12_euclid \\
 & (k12_integr15 X2 X3 X4 X5)) (k4_integra5 (k3_xxreal_0 X2 X3) (k4_xxreal_0 \\
 & X2 X3) (k1_nfcont_4 X4 k1_numbers X5))))))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\ (r1_xxreal_0 X0 X1) \Rightarrow (k3_xxreal_0 X0 X1 = X0)) \wedge ((\neg r1_xxreal_0 X0 \\ X1) \Rightarrow (k3_xxreal_0 X0 X1 = X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\ (r1_xxreal_0 X1 X0) \Rightarrow (k4_xxreal_0 X0 X1 = X0)) \wedge ((\neg r1_xxreal_0 X1 \\ X0) \Rightarrow (k4_xxreal_0 X0 X1 = X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (k3_xxreal_0 X0 X1 = k3_xxreal_0 X1 X0) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (5)$$

Theorem 1

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. \\ (v1_xreal_0 X2) \Rightarrow (\forall X3.(v1_xreal_0 X3) \Rightarrow (\forall X4.((\neg \\ v1_xboole_0 X4) \wedge (m2_subset_1 X4 k1_numbers k5_numbers)) \Rightarrow (\forall X5. \\ ((v1_funct_1 X5) \wedge (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 k1_numbers \\ (k1_euclid X4)))))) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge ((r1_xxreal_0 X2 X3) \wedge \\ ((r1_integr15 X4 (k3_integra5 X0 X1) X5) \wedge ((r1_integra5 (k3_integra5 \\ X0 X1) (k1_nfcont_4 X4 k1_numbers X5)) \wedge ((v3_integr15 (k2_partfun1 \\ k1_numbers (k1_euclid X4) X5 (k3_integra5 X0 X1)) X4) \wedge ((r1_tarski \\ (k3_integra5 X0 X1) (k1_relset_1 k1_numbers X5)) \wedge ((X2 \in k3_integra5 \\ X0 X1) \wedge (X3 \in k3_integra5 X0 X1)))))) \Rightarrow (r1_xxreal_0 (k12_euclid \\ (k12_integr15 X3 X2 X4 X5)) (k4_integra5 X2 X3 (k1_nfcont_4 X4 k1_numbers \\ X5)))))))))) \end{aligned}$$