

t23_euclmetr
(TMYN_xKcn2n7LF79ngfHT14abbg9H39fZheS)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_analmetr : \iota \Rightarrow o$ be given. Let $l1_analmetr : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v5_rlvect_1 : \iota \Rightarrow o$ be given. Let $v6_rlvect_1 : \iota \Rightarrow o$ be given. Let $v7_rlvect_1 : \iota \Rightarrow o$ be given. Let $v8_rlvect_1 : \iota \Rightarrow o$ be given. Let $l1_rlvect_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_analmetr : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_analmetr : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_euclmetr : \iota \Rightarrow o$ be given. Let $v2_euclmetr : \iota \Rightarrow o$ be given. Let $v3_euclmetr : \iota \Rightarrow o$ be given. Let $v4_euclmetr : \iota \Rightarrow o$ be given. Let $v5_euclmetr : \iota \Rightarrow o$ be given. Let $v6_euclmetr : \iota \Rightarrow o$ be given. Let $v7_euclmetr : \iota \Rightarrow o$ be given. Let $v3_conaffm : \iota \Rightarrow o$ be given. Let $v5_conaffm : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k3_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_rlvect_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $k2_analoaf : \iota \Rightarrow \iota$ be given. Let $v2_analoaf : \iota \Rightarrow o$ be given. Let $l1_analoaf : \iota \Rightarrow o$ be given. Let $k3_analmetr : \iota \Rightarrow \iota$ be given. Let $k2_diraf : \iota \Rightarrow \iota$ be given. Let $v11_aff_2 : \iota \Rightarrow o$ be given. Let $v7_aff_2 : \iota \Rightarrow o$ be given. Let $v4_aff_2 : \iota \Rightarrow o$ be given. Let $v2_aff_2 : \iota \Rightarrow o$ be given. Let $v1_analoaf : \iota \Rightarrow o$ be given. Let $v1_translac : \iota \Rightarrow o$ be given. Let $v2_analmetr : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v3_analmetr X0) \wedge (l1_analmetr X0))) \Rightarrow ((v1_euclmetr X0) \Leftrightarrow (v3_conaffm X0)) \quad (1)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v3_analmetr X0) \wedge (l1_analmetr X0))) \Rightarrow ((v5_conaffm X0) \Rightarrow (v3_conaffm X0)) \quad (2)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
& X0)))))))))) \Rightarrow ((\exists X1.(m1_subset_1 X1 (u1_struct_0 X0)) \wedge \\
& (\exists X2.(m1_subset_1 X2 (u1_struct_0 X0)) \wedge (\forall X3.(m1_subset_1 \\
& X3 k1_numbers) \Rightarrow (\forall X4.(m1_subset_1 X4 k1_numbers) \Rightarrow ((k3_rlvect_1 \\
& X0 (k1_rlvect_1 X0 X1 X3) (k1_rlvect_1 X0 X2 X4) = k4_struct_0 X0) \Rightarrow \\
& ((X3 = k6_numbers) \wedge (X4 = k6_numbers)))))) \Rightarrow ((\neg v7_struct_0 (k2_analoaf \\
& X0)) \wedge ((v2_analoaf (k2_analoaf X0)) \wedge (l1_analoaf (k2_analoaf \\
& X0))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_analmetr X0) \wedge (l1_analmetr \\
& X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((\\
& v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v5_rlvect_1 \\
& X1) \wedge ((v6_rlvect_1 X1) \wedge ((v7_rlvect_1 X1) \wedge ((v8_rlvect_1 X1) \wedge \\
& (l1_rlvect_1 X1)))))))))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\
& X1)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X1)) \Rightarrow (((r1_analmetr \\
& X1 X2 X3) \wedge (X0 = k2_analmetr X1 X2 X3)) \Rightarrow (v7_euclmetr X0))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_analmetr X0) \wedge (l1_analmetr \\
& X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((\\
& v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v5_rlvect_1 \\
& X1) \wedge ((v6_rlvect_1 X1) \wedge ((v7_rlvect_1 X1) \wedge ((v8_rlvect_1 X1) \wedge \\
& (l1_rlvect_1 X1)))))))))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\
& X1)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X1)) \Rightarrow (((r1_analmetr \\
& X1 X2 X3) \wedge (X0 = k2_analmetr X1 X2 X3)) \Rightarrow (v5_conafm X0))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
& X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (k3_analmetr (\\
& k2_analmetr X0 X1 X2) = k2_diraf (k2_analoaf X0))))))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\
& ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\
& X0)))))))))) \Rightarrow (\forall X1.((\neg v7_struct_0 X1) \wedge ((v2_analoaf X1) \wedge \\
& (l1_analoaf X1))) \Rightarrow ((X1 = k2_analoaf X0) \Rightarrow (v11_aff_2 (k2_diraf \\
& X1))))))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (v13_algstr_0 X0) \wedge (v2_rlvect_1 \\ & X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge (v7_rlvect_1 X0) \wedge (v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ & X0)))))) \Rightarrow (\forall X1.((\neg v7_struct_0 X1) \wedge (v2_analoaf X1) \wedge \\ & (l1_analoaf X1))) \Rightarrow ((X1 = k2_analoaf X0) \Rightarrow (v7_aff_2 (k2_diraf X1))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (v13_algstr_0 X0) \wedge (v2_rlvect_1 \\ & X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge (v7_rlvect_1 X0) \wedge (v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ & X0)))))) \Rightarrow (\forall X1.((\neg v7_struct_0 X1) \wedge (v2_analoaf X1) \wedge \\ & (l1_analoaf X1))) \Rightarrow ((X1 = k2_analoaf X0) \Rightarrow (v4_aff_2 (k2_diraf X1))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (v13_algstr_0 X0) \wedge (v2_rlvect_1 \\ & X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge (v7_rlvect_1 X0) \wedge (v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ & X0)))))) \Rightarrow (\forall X1.((\neg v7_struct_0 X1) \wedge (v2_analoaf X1) \wedge \\ & (l1_analoaf X1))) \Rightarrow ((X1 = k2_analoaf X0) \Rightarrow (v2_aff_2 (k2_diraf X1))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.((\neg v7_struct_0 X0) \wedge (v2_analoaf X0) \wedge (l1_analoaf X0)) \Rightarrow ((v1_analoaf (k2_diraf X0)) \wedge (v1_translac (k2_diraf X0))) \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (v13_algstr_0 X0) \wedge (v2_rlvect_1 \\ & X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge (v7_rlvect_1 X0) \wedge (v8_rlvect_1 X0) \wedge (l1_rlvect_1 \\ & X0)))))) \Rightarrow ((v1_analoaf (k2_analoaf X0)) \wedge (l1_analoaf (k2_analoaf \\ & X0))) \end{aligned} \quad (12)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (v2_analmetr X0) \wedge (l1_analmetr X0)) \Rightarrow ((v6_euclmetr X0) \Leftrightarrow (v11_aff_2 (k3_analmetr X0))) \quad (13)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (v2_analmetr X0) \wedge (l1_analmetr X0)) \Rightarrow ((v5_euclmetr X0) \Leftrightarrow (v7_aff_2 (k3_analmetr X0))) \quad (14)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (v2_analmetr X0) \wedge (l1_analmetr X0)) \Rightarrow ((v4_euclmetr X0) \Leftrightarrow (v1_translac (k3_analmetr X0))) \quad (15)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_analmetr X0) \wedge (l1_analmetr X0))) \Rightarrow ((v3_euclmetr X0) \Leftrightarrow (v4_aff_2 (k3_analmetr X0))) \quad (16)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_analmetr X0) \wedge (l1_analmetr X0))) \Rightarrow ((v2_euclmetr X0) \Leftrightarrow (v2_aff_2 (k3_analmetr X0))) \quad (17)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v5_rlvect_1 X0) \wedge \\ & ((v6_rlvect_1 X0) \wedge ((v7_rlvect_1 X0) \wedge ((v8_rlvect_1 X0) \wedge (l1_rlvect_1 X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r1_analmetr X0 X1 X2) \Leftrightarrow ((\forall X3.(m1_subset_1 X3 (u1_struct_0 X0)) \Rightarrow (\exists X4. \\ & (m1_subset_1 X4 k1_numbers) \wedge (\exists X5.(m1_subset_1 X5 k1_numbers) \wedge \\ & (X3 = k3_rlvect_1 X0 (k1_rlvect_1 X0 X1 X4) (k1_rlvect_1 X0 X2 X5)))))) \wedge \\ & (\forall X3.(m1_subset_1 X3 k1_numbers) \Rightarrow (\forall X4.(m1_subset_1 X4 k1_numbers) \Rightarrow ((k3_rlvect_1 X0 (k1_rlvect_1 X0 X1 X3) (k1_rlvect_1 \\ & X0 X2 X4) = k4_struct_0 X0) \Rightarrow ((X3 = k6_numbers) \wedge (X4 = k6_numbers)))))))))) \quad (18) \end{aligned}$$

Assume the following.

$$\forall X0.(l1_analmetr X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge (v3_analmetr X0)) \Rightarrow ((\neg v2_struct_0 X0) \wedge (v2_analmetr X0))) \quad (19)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_analmetr X0) \wedge (l1_analmetr X0))) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((\\ & v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge ((v5_rlvect_1 X1) \wedge ((v6_rlvect_1 X1) \wedge ((v7_rlvect_1 X1) \wedge ((v8_rlvect_1 X1) \wedge \\ & (l1_rlvect_1 X1)))))))))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X1)) \Rightarrow (\forall X3.(m1_subset_1 X3 (u1_struct_0 X1)) \Rightarrow ((r1_analmetr \\ & X1 X2 X3) \wedge (X0 = k2_analmetr X1 X2 X3)) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((v3_analmetr X0) \wedge ((v1_euclmetr X0) \wedge ((v2_euclmetr X0) \wedge ((v3_euclmetr X0) \wedge \\ & ((v4_euclmetr X0) \wedge ((v5_euclmetr X0) \wedge ((v6_euclmetr X0) \wedge ((v7_euclmetr X0) \wedge (l1_analmetr X0)))))))))))))) \quad (19) \end{aligned}$$