

t7_funct_9

(TMQdX3gA95182MM4EZB8LpXSN2x6TgVGepM)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v1_funct_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k24_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_valued_0 : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 \\ X1) \wedge (v3_valued_0 X1))) \Rightarrow ((v1_funct_9 X1 X0) \Leftrightarrow ((X0 \neq k6_numbers) \wedge \\ (\forall X2.(v1_xreal_0 X2) \Rightarrow ((X2 \in k9_xtuple_0 X1) \Rightarrow ((k2_xcmplx_0 \\ X2 X0 \in k9_xtuple_0 X1) \wedge ((k6_xcmplx_0 X2 X0 \in k9_xtuple_0 X1) \wedge (k1_funct_1 \\ X1 X2 = k1_funct_1 X1 (k2_xcmplx_0 X2 X0)))))))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_valued_0 \\ X0))) \wedge (v1_xreal_0 X1)) \Rightarrow ((v1_relat_1 (k24_valued_1 X0 X1)) \wedge (\\ (v1_funct_1 (k24_valued_1 X0 X1)) \wedge (v3_valued_0 (k24_valued_1 \\ X0 X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_valued_0 \\ X0))) \wedge (v1_xcmplx_0 X1)) \Rightarrow ((v1_relat_1 (k24_valued_1 X0 X1)) \wedge \\ ((v1_funct_1 (k24_valued_1 X0 X1)) \wedge (v1_valued_0 (k24_valued_1 \\ X0 X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_valued_0 X0))) \Rightarrow \\ (\forall X1.(v1_xcmplx_0 X1) \Rightarrow (\forall X2.((v1_relat_1 X2) \wedge (\\ v1_funct_1 X2)) \Rightarrow ((X2 = k24_valued_1 X0 X1) \Leftrightarrow ((k9_xtuple_0 X2 = k9_xtuple_0 \\ X0) \wedge (\forall X3.(X3 \in k9_xtuple_0 X2) \Rightarrow (k1_funct_1 X2 X3 = k3_xcmplx_0 \\ X1 (k1_funct_1 X0 X3))))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v3_valued_0 X0)) \Rightarrow ((v1_relat_1 X0) \wedge (v1_valued_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (v1_xcmplx_0 X0) \quad (6)$$

Theorem 1

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2. ((v1_relat_1 X2) \wedge ((v1_funct_1 X2) \wedge (v3_valued_0 X2)))) \Rightarrow ((v1_funct_9 X2 X0) \Rightarrow (v1_funct_9 (k24_valued_1 X2 X1) X0))))$$