

***54·26.** $\vdash \iota'x \circ \iota'y \in 2 \equiv .x \neq y$

Dem.

$\vdash . *54·101 \ . \supset \vdash \iota'x \circ \iota'y \in 2 .$

$\equiv \vdash (\exists z, w) . z \neq w . \iota'x \circ \iota'y = \iota'z \circ \iota'w \vdash$

[*54·22] $\equiv \vdash (\exists z, w) . z \neq w : x = z . y = w . \vee . x = w . y = z \vdash$

[*4·4 . *11·41] $\equiv \vdash (\exists z, w) . z \neq w . x = z . y = w . \vee . (\exists z, w) . z \neq w . x = w . y = z \vdash$

[*13·22] $\equiv \vdash x \neq y . \vee . y \neq x \vdash$

[*13·16] $\equiv \vdash x \neq y \vdash \supset \vdash \text{Prop}$