	$ abla_R: \Phi \circ \neg \alpha, \Psi \\  \downarrow \\  \Phi, \alpha \circ \Psi $	$\forall_R : \qquad \phi \ o \ \forall x \varphi, \psi \ \mid \ \phi \ o \ [d_{k+1}/x] \varphi, \psi$	(1) $D = \{d_1,, d_k\}$ (2) (1) $D = \{d_1,, d_k \ d_{k+1}\}$ (2)
$egin{array}{cccccccccccccccccccccccccccccccccccc$		$\forall_L$ : $\phi$ , $\forall x \varphi$ $o$ $\psi$ $\Big $ $\phi$ , $\Big $ $\Big $ $\Big $ $\phi$ , $\Big $	(1) $D = \{d_1,, d_k\}$ (2) $\psi$ (1) $D = \{d_1,, d_k\}$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$egin{array}{cccc} oldsymbol{v}_{\scriptscriptstyle R} \colon & \Phi \circ lpha ee eta, \Psi \ & oldsymbol{\Phi} \circ lpha, eta, \Psi \end{array}$	$\exists_L: \qquad \phi, \exists x \varphi \ o \ \psi$	(2) $\forall x \varphi : \{d_1,, d_k\}$ (1) $D = \{d_1,, d_k\}$ (2)  (1) $D = \{d_1,, d_k, d_{k+1}\}$
$\Rightarrow_{L}: \Phi, \alpha \rightarrow \beta \circ \Psi$	$\Rightarrow_{R}: \Phi \circ \alpha \rightarrow \beta, \Psi$ $\downarrow \qquad \qquad \qquad \downarrow$ $\Phi, \alpha \circ \beta, \Psi$	$\phi$ , $[d_{k+1}/x]\varphi$ $\phi$	(1) $D = \{d_1,, d_k \ d_{k+1}\}$ (2) (1) $D = \{d_1,, d_k\}$
$\Phi, \beta \circ \Psi \qquad \Phi \circ \alpha, \Psi$ $\Leftrightarrow_{L}: \Phi, \alpha \Leftrightarrow \beta \circ \Psi$	$\Leftrightarrow_{R}: \Phi \circ \alpha \Leftrightarrow \beta, \Psi$	$\exists_R: \phi o \exists x \varphi, \psi$ $\downarrow$ $\phi o [d_1/x] \varphi,, [d_k/x] \varphi, \exists x \varphi$	(2)
$\Phi,\alpha,\beta\circ\Psi\qquad \Phi\circ\alpha,\beta,\Psi$	$\Phi, \alpha \circ \beta, \Psi$ $\Phi, \beta \circ \alpha, \Psi$		