Form: I-AAA (15, 19,	24)	Form: II-AAA	Form: III-AAA	Form: IV-AAA
All M is P. All S is M. All S is M. All S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > Mx)$ $(\forall x) (Sx > Px)$ All S is P. $(\forall x) (Sx > Px)$ All S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > Px)$ $(\forall x) (Sx > Px)$ $(\forall x) (Sx > Px)$ All S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > Px)$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 1 1 0 1 1 0 3 1 0 1 0* 0* 1 4 1 0 0 1 0* 0 5 0 1 1 1 1 1	All M is P. All M is S. All S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Xx > Px)$ $(\forall x) (Sx > Px)$ All M is S. $(\forall x) (Xx > Px)$ $(\forall x) (Xx > Px)$ All M is P. $(\forall x) (Xx > Px)$ $(\forall x) (Xx > Px)$ All M is P. $(\forall x) (Xx > Px)$ $(\forall x) (Xx > Px)$ All M is P. $(\forall x) (Xx > Px)$ $(\forall x) (Xx > Px)$ All M is P. $(\forall x) (Xx > Px)$ $(\forall x) (Xx > Px)$ All M is P. $(\forall x) (Xx > Px)$ $(\forall x) (Xx > Px)$ All M is P. $(\forall x) (Xx > Px)$ $(\forall x) (Xx > Px)$ All M is P. $(\forall x) (Xx > Px)$ $(\forall x) (Xx > Px)$ All M is P. $(\forall x) (Xx > Px)$ $(\forall x) (Xx > Px)$ All M is P. $(\forall x) (Xx > Px)$ All D D D D D D D D D D D D D D D D D D	All P is M. All M is S. ∴ All S is P. $(\forall x) (Px > Mx)$ ∴ $(\forall x) (Sx > Px)$
Form: I-AAE All M is P. All S is M. All S is not P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > Mx)$ $(\forall x) (Sx > 7x)$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3 1 0 1 0* 0* 0 4 1 0 0 1 0* 1 5 0 1 1 1 1 5 0 1 0 1 1 1	Form: III-AAE All M is P. All M is S. All S is not P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > `Px)$ All M is S. $(\forall x) (Sx > `Px)$ All M is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > `Px)$ All M is S. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > Sx)$ All S is not P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > Sx)$ $(\forall x) (Mx > Sx)$ All D is D	Form: IV-AAE All P is M. All M is S. All S is not P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > Sx)$ $(\forall x) (Sx > ^px)$ All M is S. $(\forall x) (Sx > ^px)$ All D is M. All M is S. $(\forall x) (Px > Mx)$ $(\forall x) (Px > Mx)$ $(\forall x) (Mx > Sx)$ $(\forall x) (Sx > ^px)$ All D is M. S M P P P M M > S S > ^px 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 0 1 1 1 1
All M is P. All S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(∀x) (Sx > Mx)$ ∴ $(∃x) (Sx \wedge Px)$ $(∃x) (Sx \wedge Px)$ $(∀x) (x + x) (x + $	1 0 All S is M. 2 1 1*		Form: III-AAI (19, 24) All M is P. All M is S. Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Px)$ Form: III-AAI (19, 24) $\exists \exists \exists \exists \exists \forall \forall \forall \exists \exists \exists \land \exists \forall \exists \exists \exists \exists \exists \exists $	Form: IV-AAI (19, 24) $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

	Form: I-AEA	Form: II-AEA	Form: III-AEA	Form: IV-AEA
		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
All M is P.		All P is M.	All M is P. 1 1 1 1 1 0* 1	S M P P > M M > "S S > P All P is M.
All S is not M.	2 1 1 0 0* 0* 0	All S is not M. 2 1 1 0 1 0* 0	All M is not S. 2 1 1 0 0* 0* 0	All M is not S. 2 1 1 0 1 0* 0
	3 1 0 1 1 1 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	∴ All S is P. 3 1 0 1 1 1 1	∴ All S is P. 3 1 0 1 0* 1 1
••	4 1 0 0 1 1 0	4 1 0 0 1 1 0	4 1 0 0 1 1 0	4 1 0 0 1 1 0
$(\forall x) (Mx > Px)$	5 0 1 1 1 1 1	$(\forall x) (Px > Mx)$ 5 0 1 1 1 1	$(\forall x) (Mx > Px)$ 5 0 1 1 1 1	$(\forall x) (Px > Mx)$ 5 0 1 1 1 1 1
$(\forall x) (Sx > Mx)$	6 0 1 0 0* 1 1	$(\forall x) (Sx > Mx)$ 6 0 1 0 1 1	$(\forall x) (Mx > "Sx) $	$(\forall x) (Mx > "Sx) $
$\therefore (\forall x) (Sx > Px)$	7 0 0 1 1 1 1	∴ $(\forall x)(Sx > Px)$ 7 0 0 1 0* 1 1	$\therefore (\forall x) (Sx > Px) \boxed{7} \boxed{0} \boxed{0} \boxed{1} \boxed{1} \qquad \boxed{1}$	∴ $(\forall x)(Sx > Px)$ 7 0 0 1 0* 1 1
	8 0 0 0 1 1 1	8 0 0 0 1 1 1	8 0 0 0 1 1 1	8 0 0 0 1 1 1
	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
	Form: I-AEE	Form: II-AEE (15, 19, 24)	Form: III-AEE	Form: IV-AEE (15, 19, 24)
		A A A A	3 3 3 A A A	A A A
	S M P M > P S > "M S > "P	S M P P > M S > "M S > "P	S M P M>P M>°S S>°P	S M P P M M > "S S > "P
	1 1 1 1 0* 0	All P is M. 1 1 1 1 0* 0	All M is P. 1 1 1 1 0* 0	All P is M. 1 1 1 1 0* 0
All S is not M.	2 1 1 0 0* 0* 1	All S is not M. 2 1 1 0 1 0* 1	All M is not S. 2 1 1 0 0* 0* 1	All M is not S. All S is not P. 3 1 0 1 0* 1 0* 1 0* 1
∴ All S is not P.	3 1 0 1 1 1 0 4 1 0 0 1 1 1	∴ All S is not P. 3 1 0 1 0* 1 0 4 1 0 0 1 1 1	∴ All S is not P. 3 1 0 1 1 1 0 1 4 1 0 1 1 1 1 1 1 1 1 1 1	\therefore All S is not P. $\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$(\forall x) (Mx > Px)$	5 0 1 1 1 1 1	$(\forall x) (Px > Mx) \begin{vmatrix} 4 & 1 & 0 & 0 & 1 & 1 & 1 \\ 5 & 0 & 1 & 1 & 1 & 1 & 1 \end{vmatrix}$	$(\forall x) (Mx > Px)$ 5 0 1 1 1 1 1	$(\forall x) (Px > Mx)$ 5 0 1 1 1 1 1
$(\forall x)(\exists x > \exists x)$	6 0 1 0 0* 1 1	$(\forall x)(\exists x > \exists x)$ 6 0 1 0 1 1 1	$(\forall x) (Mx > Tx) = 0 = 0 = 1 = 1 = 1 = 1 = 1 = 1 = 1 = 1$	$(\forall x) (\exists x) \exists x (\forall x) (\exists x) $
$\therefore \frac{(\forall x) (Sx > ^{n}Px)}{(\forall x) (Sx > ^{n}Px)}$	7 0 0 1 1 1 1	$\therefore (\forall x) (Sx > ^{\circ}Px) $	$\therefore (\forall x) (Sx > ^{\circ}Px) 7 0 0 1 1 1 1$	$(\forall x) (Sx > ^{\circ}Px) \qquad 7 \qquad 0 \qquad 0 \qquad 1 \qquad 0^{*} \qquad 1 \qquad 1$
	8 0 0 0 1 1 1	8 0 0 0 1 1 1	8 0 0 0 1 1 1	8 0 0 0 1 1 1
	1 1 1 1 0	1 1 1 1 1	1 1 1 1 0	1 1 1 1 1
	Form: I-AEI	Form: II-AEI	Form: III-AEI	Form: IV-AEI
	Form: I-AEI	Form: II-AEI	Form: III-AEI	Form: IV-AEI
All M is P.	B B B B B B B B B B B B B B B B B B B	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3 3 3 A A 3	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
All S is not M.	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
All S is not M. ∴ Some S is P.	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	All P is M. All S is not M. ∴ Some S is P.	All M is P. All M is not S. ∴ Some S is P.	All P is M. All M is not S. ∴ Some S is P.
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $\begin{vmatrix} 3 & 3 & 3 & \forall & \forall & \exists \\ 5 & M & P & P > M & S > ^{*}M & S \wedge P \\ 1 & 1 & 1 & 1 & 1 & 0^* & 1^* \\ 2 & 1 & 1 & 0 & 1 & 0^* & 0 \\ 3 & 1 & 0 & 1 & 0^* & 1 & 1^* \\ 4 & 1 & 0 & 0 & 1 & 1 & 0 \end{vmatrix}$	All M is P. All M is not S. ∴ Some S is P. $(∀x) (Mx > Px)$ $\begin{vmatrix} 3 & 3 & 3 & ∀ & ∀ & 3 \\ 8 & M & P & M > P & M > R & S & S \land P \\ 1 & 1 & 1 & 1 & 1 & 0^* & 1^* \\ 2 & 1 & 1 & 0 & 0^* & 0^* & 0 & 0 \end{vmatrix}$ $3 & 1 & 0 & 1 & 1 & 1 & 1^* \\ 4 & 1 & 0 & 0 & 1 & 1 & 0 & 0 \end{vmatrix}$	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $\begin{vmatrix} 3 & 3 & 3 & \forall & \forall & \exists \\ 5 & M & P & P > M & M > \tilde{x}S & S \land P \\ 1 & 1 & 1 & 1 & 1 & 0^* & 1^* \\ 2 & 1 & 1 & 0 & 1 & 0^* & 0 \\ 3 & 1 & 0 & 1 & 0^* & 1 & 1^* \\ 4 & 1 & 0 & 0 & 1 & 1 & 0 \\ (\forall x) (Px > Mx) & 5 & 0 & 1 & 1 & 1 & 0 \end{vmatrix}$
All S is not M. Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > ^mx)$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	All M is P. All M is not S. ∴ Some S is P. $(∀x) (Mx > Px)$ $(∀x) (Mx > 7x)$ $(x) (Xx) (Xx) (Xx)$ $(x) (Xx) (Xx) (Xx)$ $(x) (x) (x) (x) (x)$ $(x) (x) (x) (x) (x) (x)$ $(x) (x) (x) (x) (x) (x)$ $(x) (x) (x) (x$	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > ^*Sx)$ $(∀x) (Mx > ^*Sx)$ $(∀x) (Mx > ^*Sx)$ $(∀x) (Px > Mx)$ $(∀x) (Mx > ^*Sx)$ $(∀x) (Px > Mx)$ $(∀x) (Mx > ^*Sx)$ $(∀x) (Px > Mx)$ $(∀x) (Mx > ^*Sx)$
All S is not M. $\therefore \text{ Some S is P.}$ $(\forall x) (Mx > Px)$ $(\forall x) (Sx > \text{`Mx})$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists \exists \exists \exists \forall \forall \forall \exists \exists x \land x \land$	All M is P. All M is not S. ∴ Some S is P. $(∀x) (Mx > Px)$ $(∀x) (Mx > Px)$ $∴ (∃x) (Sx ∧ Px)$ $(∀x) (Tx) (Tx) (Tx) (Tx) (Tx) (Tx) (Tx) (T$	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > ^*Sx)$ $(∃x) (Sx ∧ Px)$ $\begin{vmatrix} \exists & \exists & \exists & \forall & \forall & \exists \\ S & M & P & P > M & M > ^*S & S ∧ P \\ 1 & 1 & 1 & 1 & 1 & 0 * & 1 * \\ 2 & 1 & 1 & 0 & 1 & 0 * & 0 \\ 3 & 1 & 0 & 1 & 0 * & 1 & 1 * \\ 4 & 1 & 0 & 0 & 1 & 1 & 0 \\ 5 & 0 & 1 & 1 & 1 & 1 & 0 \\ 6 & 0 & 1 & 0 & 1 & 1 & 0 \\ 7 & 0 & 0 & 1 & 0 * & 1 & 0 $
All S is not M. Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > ^mx)$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > ^mx)$ $(∀x) (Sx ∧ Px)$	All M is P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not S. 7 0 0 1 1 1 0 0* 8 $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \land Px)$ All Control of the properties of th
All S is not M. Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > ^mx)$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(∀x) (Sx ^ Mx)$ $(∀x) (Sx ^ Mx)$ $(∀x) (Sx ^ Mx)$ $(∀x) (Sx ^ Mx)$ $(∀x) (Tx > Mx)$ $(x) (Tx > Mx)$ $(x$	All M is P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not S. 1 1 1 1 1 1 1 0°* 1* 2 1 1 0 0°* 0°* 0° 3 1 0 1 1 1 1 1 1 1° 4 1 0 0 1 1 1 0 0° 5 0 1 1 1 1 1 0 0° 6 0 1 0 0°* 1 0° 7 0 0 1 1 1 0 0° 8 0 0 0 0 1 1 1 0 1 1 1 1 0	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(∀x) (Mx > "Sx)$ $(∀x) (Sx ∧ Px)$ $(∃x) (Sx ∧ Px)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $
All S is not M. Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > ^mx)$	∃ ∃ ∃ ∀ ∀ ∃ S M P M > P S > "M S ∧ P	All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \land Px)$	All M is P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(∀x) (Mx > °Sx)$ $∴ (∃x) (Sx ∧ Px)$ $(∀x) (Fx > Mx)$ $(∀x) (F$
All S is not M. Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > ^mx)$	∃ ∃ ∃ ∀ ∀ ∃ S M P M > P S > "M S ∧ P	All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(∀x) (Sx > ^mx)$ $(x) (x) (x) (x)$ $(x$	All M is P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (\exists x) $	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(∀x) (Mx > ^*Sx)$ $(∀x) (Sx ∧ Px)$ $(∀x) (Tx) (Tx) (Tx) (Tx) (Tx) (Tx) (Tx) (T$
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > ^mx)$ $∴ (\exists x) (Sx \land Px)$	∃ ∃ ∃ ∀ ∀ ∃ S M P M > P S > "M S ∧ P	All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \land Px)$	All M is P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(∀x) (Mx > °Sx)$ $∴ (∃x) (Sx ∧ Px)$ $(∀x) (Fx > Mx)$ $(∀x) (F$
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > ^mx)$ $∴ (\exists x) (Sx \land Px)$	∃ ∃ ∃ ∀ ∀ ∃ S M P M > P S > "M S ∧ P	All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All P is M. All P is M. All S is not M. $(\forall x) (Px > Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All P is M. All S is not M. $(\exists x) (Sx \land Px)$ $(\exists x$	All M is P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(∀x) (Mx > ^*Sx)$ $(∀x) (Sx ∧ Px)$ $(∀x) (Sx ∧ Px)$ $(∀x) (Sx ∧ Px)$ $(∀x) (Sx ∧ Px)$ $(∀x) (Fx > Mx)$ $(∀x) (Fx$
All S is not M. \therefore Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > \text{`Mx})$ $\therefore (\exists x) (Sx \land Px)$ All M is P.		All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \wedge Px)$	All M is P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All M is P. $(\exists x) (Sx \land Px)$ $(\exists x) $	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Sx \land Px)$ ∴ (∃x) (Sx \ \ Px) All P is M. All P is M. $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $All P is M. All M is not S. (\exists x) (Sx \land Px) ($
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > \text{`Mx})$ ∴ $(\exists x) (Sx \land Px)$ All M is P. All S is not M. ∴ Some S is not P.		All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All P is M. All P is M. All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All P is M. All S is not M. ∴ Some S is not P. $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land $	All M is P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All M is P. $(\exists x) (Sx \land Px)$ $(\exists x) $	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \land Px)$ $All P is M. All M is not S. ∴ Some S is not P. (\exists x) (Sx \land Px) (\exists x) $
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > \text{`Mx})$ ∴ $(\exists x) (Sx \land Px)$ All M is P. All S is not M. ∴ Some S is not P. $(\forall x) (Mx > Px)$		All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \wedge Px)$	All M is P. All M is not S. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx \land Px)$ $All M is not S.$ ∴ All M is P. $(∀x) (Mx > Px)$ $(∀x) (Xx) (Xx) (Xx)$ $(∀x) (Xx) (Xx) (Xx) (Xx) (Xx) (Xx) (Xx) (X$	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \land Px)$
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > {}^mx)$ ∴ $(\exists x) (Sx \land Px)$ All M is P. All S is not M. ∴ Some S is not P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > Px)$ $(\forall x) (Sx > {}^mx)$		All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \wedge Px)$	All M is P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is P. All M is not S. ∴ Some S is not P. All M is Not S. ∴ Some S is not P. All M is not S. ∴ Some S is not P. All M is P. All M is Not S. ∴ Some S is not P. All M is P. All M is Not S. ∴ Some S is not P. All M is P. All M is Not S. All M is P. All M is Not S. All	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > ^*Sx)$ ∴ (∃x) (Sx \land Px) $(\exists x) (Sx \land Px)$
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > {}^mx)$ ∴ $(\exists x) (Sx \land Px)$ All M is P. All S is not M. ∴ Some S is not P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > Px)$ $(\forall x) (Sx > {}^mx)$		All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \wedge Px)$ $\exists \exists \exists \exists \forall \forall \forall \exists \exists \land $	All M is P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ $All M is not S.$ ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ $($	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(∀x) (Mx > ^*Sx)$ ∴ (∃x) (Sx \land Px) All P is M. All P is M. $(\forall x) (Px > Mx)$ $(∀x) (Mx > ^*Sx)$ ∴ (∃x) (Sx \land Px) $(\exists x) (Sx \land Px)$ All P is M. All M is not S. ∴ Some S is not P. $(\forall x) (Px > Mx)$ $(∀x) (Px > Mx)$ $(∀x) (Mx > ^*Sx)$ $(∃x) (Sx \land Px) (\exists x) (Sx \land Px) (\exists x) (Sx \land Px) (\exists x) (Sx \land Px) (∀x) (Px > Mx) (∀x) $
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > {}^mx)$ ∴ $(\exists x) (Sx \land Px)$ All M is P. All S is not M. ∴ Some S is not P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > Px)$ $(\forall x) (Sx > {}^mx)$		All P is M. All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \wedge Px)$	All M is P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is P. All M is not S. ∴ Some S is not P. All M is Not S. ∴ Some S is not P. All M is not S. ∴ Some S is not P. All M is P. All M is Not S. ∴ Some S is not P. All M is P. All M is Not S. ∴ Some S is not P. All M is P. All M is Not S. All M is P. All M is Not S. All	All P is M. All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(∀x) (Mx > ^*Sx)$ ∴ (∃x) (Sx \land Px) $(∃x) (Sx \land Px)$ $(∃x) (Sx \land Px)$ $(∀x) (Px > Mx)$ $(∃x) (Sx \land Px)$ $(∃x) (x) (x) (x) (x)$ $(∃x) (x) (x) (x) (x) (x)$ $(∃x) (x) (x) (x) (x) (x) (x) (x)$ $(∃x) (x) (x) (x) (x) (x) (x) (x) (x) (x) ($

ſ	Form: I-AIA	Form: II-AIA	Form: III-AIA	Form: IV-AIA
All M is P.	S M P $M > P$ $S \wedge M$ $S > P$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	S M P $M > P$ $M \wedge S$ $S > P$	S M P $P > M$ $M \wedge S$ $S > P$
Some S is M.	1 1 1 1 1 1 2 1 1 0 0* 1 0	All P is M.	All M is P. 1 1 1 1 1 1 1 1 1 Some M is S. 2 1 1 0 0* 1 0	All P is M. 1 1 1 1 1 1 1 1 Some M is S. 2 1 1 0 1 1 0
∴ All S is P.	3 1 0 1 1 0 1 4 1 0 0 1 0 0	$\therefore \text{All S is P.} \begin{array}{c ccccccccccccccccccccccccccccccccccc$	\therefore All S is P. $\begin{array}{c ccccccccccccccccccccccccccccccccccc$	\therefore All S is P. $\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	5 0 1 1 1 0 1	$(\forall x) (Px > Mx)$ 5 0 1 1 1 0 1	$(\forall x) (Mx > Px)$ 5 0 1 1 1 0 1	$(\forall x) (Px > Mx)$ 5 0 1 1 1 0 1
$\frac{(\exists x) (Sx \land Mx)}{(\forall x) (Sx > Px)}$	6 0 1 0 0 1 7 0 0 1 1 0 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
	8 0 0 0 1 0 1	8 0 0 0 1 0 1	8 0 0 0 1 0 1	8 0 0 0 1 0 1
	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
Г	Form: I-AIE	Form: II-AIE	Form: III-AIE	Form: IV-AIE
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
	1 1 1 1 1 0	All P is M. 1 1 1 1 1 0	All M is P. 1 1 1 1 1 0	All P is M. 1 1 1 1 1 0
Some S is M. ∴ All S is not P.	2 1 1 0 0* 1 1 3 1 0 1 1 0 0	Some S is M. 2 1 1 0 1 1 1 1 All S is not P. 3 1 0 1 0* 0 0	Some M is S. 2 1 1 0 0* 1 1 ∴ All S is not P. 3 1 0 1 1 0 0	Some M is S. ∴ All S is not P. 3 1 0 1 0* 0 0
$(\forall x) (Mx > Px)$	4 1 0 0 1 0 1	4 1 0 0 1 0 1	4 1 0 0 1 0 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\frac{(\exists x)(\exists x)(\exists x \land \exists x)}{(\exists x)(\exists x)(\exists x)(\exists x)(\exists x)(\exists x)(\exists x)(\exists x)$	5 0 1 1 0 1 6 0 1 0 0* 0 1	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$(\exists x) (Mx \land Sx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 1$
L. L.	7 0 0 1 1 0 1 8 0 0 0 1 0 1			
l	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
	Form: I-AII (15, 19, 24)	Form: II-AII	Form: III-AII (15, 19, 24)	Form: IV-AII
[Form: I-AII (15, 19, 24)	Form: II-AII	Form: III-AII (15, 19, 24)	Form: IV-AII
All M is P.	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
All M is P. Some S is M.	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some S is M.	∃ ∃ ∃ ∃ S M P M > P S ∧ M 1 1 1 1 1 3 3 3 4 5 5 5 5 5 5 5 5 5	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	All P is M. Some S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Px > Mx)$ $(\forall x) (Px > Mx)$ $(x) (Px > Mx)$	All M is P. Some M is S. ∴ Some S is P.	All P is M. Some M is S. ∴ Some S is P. $(\forall x) (Px > Mx)$
Some S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \wedge Mx)$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	All P is M. Some S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Sx \land Mx)$	All M is P. Some M is S. ∴ Some S is P. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	All P is M. Some M is S. ∴ Some S is P.
Some S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$ $∴ (\exists x) (Sx \land Px)$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	All P is M. Some S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) $	All M is P. Some M is S. ∴ Some S is P. $(∀x) (Mx > Px)$ $(∃x) (Sx ∧ Px)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $	All P is M. Some M is S. ∴ Some S is P.
Some S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$ $∴ (\exists x) (Sx \land Px)$	∃ ∃ ∃ ∃ S M P M > P S ∧ M S ∧ P 1 1 1 1 1 1* 2 1 1 0 0* 1 0 1* 3 1 0 1 1 0 1* 4 1 0 0 1 0 0 5 0 1 1 0 0 6 0 1 0 0 0 7 0 0 1 1 0 0	All P is M. Some S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ $(\exists x) (\exists x \land Ax)$	All M is P. Some M is S. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx ∧ Px)$	All P is M. Some M is S. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∃x) (Mx ∧ Sx)$ $(∃x) (Sx ∧ Px)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $
Some S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$ $∴ (\exists x) (Sx \land Px)$	∃ ∃ ∃ ∀ ∃ ∃ S M P M > P S ∧ M S ∧ P 1 1 1 1 1 1* 2 1 1 0 0* 1 0 3 1 0 1 1 0 1* 4 1 0 0 1 0 0 5 0 1 1 1 0 0 6 0 1 0 0 0 7 0 0 1 1 0 0 8 0 0 0 1 0 0 1 1 1 1 0 0	All P is M. Some S is M. Some S is P. $(∀x) (Px > Mx)$ $(∃x) (Sx ∧ Px)$ $(∃x) (∃x) (Sx ∧ Px)$ $(∃x) (∃x) (Sx ∧ Px)$ $(∃x) ($	All M is P. Some M is S. ∴ Some S is P. $(∀x) (Mx > Px)$ $(∃x) (Sx ∧ Px)$	All P is M. Some M is S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Mx \land Sx)$ $(\exists x) (Sx \land Px)$ $(\exists x)$
Some S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$ $∴ (\exists x) (Sx \land Px)$	∃ ∃ ∃ ∃ ∃ S M P M > P S ∧ M S ∧ P 1 1 1 1 1 1* 2 1 1 0 0* 1 0 1* 4 1 0 0 1 0 0 0 5 0 1 1 1 0 0 0 6 0 1 0 0 0 0 0 7 0 0 1 1 0 0 8 0 0 0 1 0 0 1 1 1 1 0 0	All P is M. Some S is M. ∴ Some S is P. $(∀x) (Px > Mx)$ $∴ (∃x) (Sx ∧ Px)$ $(∃x) (Sx ∧ Px)$ $(∃x) (x) (x) (x) (x) (x) (x) (x) (x) (x) ($	All M is P. Some M is S. ∴ Some S is P.	All P is M. Some M is S. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∃x) (Mx ∧ Sx)$ $(∃x) (Sx ∧ Px)$ $(∃x) (Sx ∧ Px)$ $(∃x) (Sx ∧ Px)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $
Some S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ All M is P.	∃ ∃ ∃ ∀ ∃ ∃ ∃ ∃ S M P M > P S ∧ M S ∧ P 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	All P is M. Some S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All P is M. All P is M. $(\exists x) (\exists x) (\exists$	All M is P. Some M is S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is P. All M is P. $(\exists x) (Mx \land Sx)$ ∴ $(\exists x) (Sx \land Px)$ All M is P. All M is P. $(\exists x) (Mx \land Sx)$ ∴ $(\exists x) (Sx \land Px)$ All M is P. $(\exists x) (Mx \land Sx)$ $(\exists$	All P is M. Some M is S. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∃x) (Mx ∧ Sx)$ ∴ $(∃x) (Sx ∧ Px)$ All P is M. $All P is M.$ $(∃x) (Mx ∧ Sx)$ $(∃x) (Tx) (Tx) (Tx)$ $(∃x) (Tx) (Tx) (Tx) (Tx) (Tx) (Tx) (Tx) (T$
Some S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ All M is P.	∃ ∃ ∃ ∀ ∃ ∃ ∃ ∃ ∃ S M P M > P S ∧ M S ∧ P 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	All P is M. Some S is M.	All M is P. Some M is S. ∴ Some S is P. $ (\forall x) (Mx > Px) $ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $ (\exists x) (xx) (xx) (xx) (xx) (xx) (xx) (xx$	All P is M. Some M is S. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∃x) (Mx ∧ Sx)$ ∴ $(∃x) (Sx ∧ Px)$ All P is M. Some M is S. ∴ Some S is not P. $All P is M.$ $Some M is S.$ $All P is M.$ $Some M is S.$ ∴ Some S is not P. $All P is M.$ $Some M is S.$ ∴ Some S is not P. $All P is M.$ $Some M is S.$ ∴ Some S is not P.
Some S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ All M is P. Some S is M. ∴ Some S is not P.	B B B V B B B S M P M > P S \land M S \land P 1 1 1 1 1 1 1 1 1	All P is M. Some S is M.	All M is P. Some M is S. ∴ Some S is P.	All P is M. Some M is S. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∃x) (Mx ∧ Sx)$ ∴ $(∃x) (Sx ∧ Px)$ All P is M. Some M is S. ∴ Some S is not P. $(∀x) (Px > Mx)$ $(∃x) (Mx ∧ Sx)$ $(∃x) (Sx ∧ Px)$ $(∃x) (∃x) (Sx ∧ Px)$ $(∃x) (∃x) (Sx ∧ Px)$ $(∃x) (∃x) (∃x)$ $(∃x) ($
Some S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ All M is P. Some S is M. ∴ Some S is not P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$		All P is M. Some S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All P is M. Some S is M. ∴ Some S is M. $(\exists x) (Sx \land Px)$	All M is P. Some M is S. ∴ Some S is P.	All P is M. Some M is S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Mx \land Sx)$ ∴ $(\exists x) (Sx \land Px)$ $All P is M. Some M is S. ∴ Some S is P. (\forall x) (Px > Mx) (\exists x) (Mx \land Sx) (\exists x) (Sx \land Px) (\exists x) (Sx \land Px$
Some S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ All M is P. Some S is M. ∴ Some S is not P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$ ∴ $(\exists x) (Sx \land Mx)$ ∴ $(\exists x) (Sx \land Mx)$	B B B V B B B S M P M > P S \land M S \land P 1 1 1 1 1 1 1 1 1	All P is M. Some S is M.	All M is P. Some M is S. ∴ Some S is P.	All P is M. Some M is S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Mx \land Sx)$ ∴ $(\exists x) (Sx \land Px)$ All P is M. Some M is S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Mx \land Sx)$ $(\exists x) (Sx \land Px)$ All P is M. Some M is S. ∴ Some S is not P. $(\forall x) (Px > Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All P is M. $(\exists x) (Sx \land Px)$ $(\exists x) (Sx$
Some S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ All M is P. Some S is M. ∴ Some S is not P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$ ∴ $(\exists x) (Sx \land Mx)$ ∴ $(\exists x) (Sx \land Mx)$		All P is M. Some S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All P is M. Some S is M. ∴ Some S is M. $(\exists x) (Sx \land Px)$	All M is P. Some M is S. ∴ Some S is P.	All P is M. Some M is S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Mx \land Sx)$ ∴ $(\exists x) (Sx \land Px)$ $All P is M. Some M is S. ∴ Some S is P. (\forall x) (Px > Mx) (\exists x) (Mx \land Sx) (\exists x) (Sx \land Px) (\exists x) (Sx \land Px$

Form: I-AOA All M is P. Some S is not M. All S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land `Mx)$ $(\exists x) (Sx \land $	Form: II-AOA All P is M. Some S is not M. $(\forall x) (Px > Mx)$ $(\exists x) (Sx \wedge "Mx)$ $(\exists x) (Sx \wedge "Mx)$ $(\forall x) (Sx > Px)$ $(\exists x) (Sx \wedge "Mx)$ $(\exists x) ($	Form: III-AOA All M is P. Some M is not S. All S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Mx \land "Sx)$ $(\forall x) (Sx > Px)$ All M is P. $(\exists x) (Mx \land "Sx)$ $(\exists x) (Mx \land (xx))$ $(\exists x) (Mx \land (xx)$	Form: IV-AOA All P is M. Some M is not S. All S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Mx \land `x Sx)$ $(\forall x) (Sx > Px)$ All D is M. Some M is not S. $(\forall x) (Px > Mx)$ $(\exists x) (Mx \land `x Sx)$ $(\forall x) (Sx > Px)$ All D is M. Form: IV-AOA $(\exists x) (M \land `x Sx)$ $(\exists x) (Mx \land `x Sx)$ $(\forall x) (Sx > Px)$ $(\exists x) (Mx \land (x Sx))$ $(\exists x) (Mx \land (x $
Form: I-AOE All M is P. All S is not P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \wedge ``Mx)$ $(\forall x) (Sx > ``Px)$ Form: I-AOE $(\exists x) \exists x \exists x y y y \exists x y y y y y y y y y y y$	Form: II-AOE $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: III-AOE 3 3 3 \forall 3 \forall S M P M > P M \(^{8}S \) S > \(^{8}P \) All M is P. 1 1 1 1 1 0 0 Some M is not S. 2 1 1 0 0 0 ∴ All S is not P. 3 1 0 1 1 0 0 ($\forall x$) ($Mx > Px$) 5 0 1 1 1 1 1 ∴ ($(\exists x)$) ($Mx \land (Sx)$) 6 0 1 0 0 1 ∴ ($(\forall x)$) ($(Sx \gt (Px)$) 6 0 1 0 0 1 × ($(\exists x)$) ($(Sx \gt (Px)$) 7 0 0 1 1 0 1 × ($(Sx \gt (Px)$) 1 1 1 1 1 1 × ($(Sx \gt (Px))$) 1 1 1 1 1 1 × ($(Sx \gt (Px))$) 1 1 1 1 1 1 1 1 × ($(Sx \gt (Px))$) 1 1 1 1 1 1 1 1 1	Form: IV-AOE All P is M. Some M is not S. All S is not P. $(\forall x) (Px > Mx)$ $(\exists x) (Mx \land ``Sx)$ $(\forall x) (Sx > ``Px)$ Form: IV-AOE $S M P P > M M \land ``S S > ``P P P M M \land ``S S > ``P M M \land ``S M M M M M M M M M M M M M M M M M M$
Form: I-AOI All M is P. Some S is not M. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Px)$ $(\exists $	Form: II-AOI All P is M. Some S is not M. $(\forall x) (Px > Mx)$ $(\exists x) (Sx \land Px)$ $\exists \exists \exists \exists \exists \forall \forall \exists \exists$	Form: III-AOI $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: IV-AOI All P is M. Some M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Mx \land "Sx)$ $(\exists x) (Sx \land Px)$ Borner: IV-AOI $\exists \exists \exists \exists \exists \forall \forall \exists \exists$
Form: I-AOO	Form: II-AOO (15, 19, 24) All P is M. Some S is not M. ($\forall x$) ($Px > Mx$) ($\exists x$) ($Sx \land ``Mx$) ($\exists x$) ($Sx \land ``Px$) Form: II-AOO (15, 19, 24) $\exists \exists \exists \exists \exists \forall \forall \exists \exists$	Form: III-AOO	Form: IV-AOO All P is M. Some M is not S. Some S is not P. $(\forall x) (Px > Mx)$ $(\exists x) (Mx \wedge "Sx)$ $(\exists x) (Sx \wedge "Px)$ Form: IV-AOO $\exists \exists \exists \exists \exists \forall \forall \exists \exists$

Form: I-EAA All M is not P. All S is M. ∴ All S is P. $(\forall x) (Mx > ``Px)$ ∴ $(\forall x) (\forall x) (Sx > Px)$ Form: I-EAA $(\exists \exists \exists \forall \forall \forall \forall \forall \forall \exists \exists$	Form: II-EAA All P is not M. All S is M. All S is P. $(\forall x) (Px > ``Mx)$ $(\forall x) (Sx > Px)$ Form: II-EAA	Form: III-EAA 3 3 3 \forall \forall \forall S M P M > "P M > S S > P All M is S.	Form: IV-EAA 3 3 3 \forall \forall \forall S M P P > \(^{1}\)M M > S S > P All P is not M. 1 1 1 1 0 1 1 1 All M is S. 2 1 1 0 1 1 1 0 \(\text{ \text{\$\sigma}} \) (\(\partial x \))
8 0 0 0 1 1 1 0 Form: I-EAE (15, 19, 24) Form: I-EAE (15, 19, 24) Form: I-EAE (15, 19, 24) □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: III-EAE Form: III-EAE All M is not P. All M is S. All S is not P. $(\forall x) (Mx > ``Px)$ $(\forall x) (Sx > ``Px)$ $(\exists x) (\exists x)$	Form: IV-EAE Form: IV-EAE All P is not M. All M is S. All S is not P. $(\forall x) (Px > ``Mx) (\forall x) (Mx > Sx)$ $(\forall x) (Sx > ``Px)$
Form: I-EAI Form: I-EAI All M is not P. All S is M. Some S is P. $(\forall x) (Mx > ``Px)$ $(\exists x) (\exists x) (Sx \land Px)$ $(\exists x) (\exists x) (Sx \land Px)$ All M is not P. $(\exists x) (\exists $	Form: II-EAI Form: II-EAI All P is not M. All S is M. Some S is P. $(\forall x) (Px > ``Mx)$ $(\exists x) (\exists x) (Sx \wedge Px)$ $(\exists x) (\exists x) (x) (x) (x) (x) (x) (x) (x) (x) (x) $	Form: III-EAI All M is not P. All M is S. Some S is P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (x) (x) (x) (x) (x) (x) (x) (x) (x) $	Form: IV-EAI Form: IV-EAI 3 3 3 7 7 7 0 0 1 1 0
Form: I-EAO (24) All M is not P. All S is M. Some S is not P. $(\forall x) (Mx > {}^{'}Px)$ $(\exists x) (Sx \wedge {}^{'}Px)$ Brown: I-EAO (24) $\exists \exists \exists \exists \exists \forall \forall \forall \exists \exists \forall \forall \forall \exists \exists \exists \exists \exists \forall \forall \exists \exists$	Form: II-EAO (24) All P is not M. All S is M. Some S is not P. $(\forall x) (Px > ^mx)$ $(\forall x) (Sx > ^mx)$ $(\exists x) (Sx \wedge ^mPx)$ $(\exists x) (Sx \wedge ^mPx)$ $(\exists x) (Sx \wedge ^mPx)$ $(0^+ 1) 1 1 1 1 1 0^* 1 0^* 1 0^* 1^* 1^* 1^* 1^* 1^* 1^* 1^* 1^* 1^* 1$	Form: III-EAO (19, 24) $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: IV-EAO (19, 24) $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Form: I-EEA	Form: II-EEA	Form: III-EEA	Form: IV-EEA
			3 3 3 A A A
S M P M > "P S > "M S > P	S M P P > "M S > "M S > P	S M P M>"P M>"S S>P	S M P P > "M M > "S S > P
All M is not P. 1 1 1 1 0* 0* 1	All P is not M. 1 1 1 1 0* 0* 1	All M is not P. 1 1 1 1 0* 0* 1	All P is not M. 1 1 1 1 0* 0* 1
All S is not M. 2 1 1 0 1 0* 0	All S is not M. 2 1 1 0 1 0* 0	All M is not S. 2 1 1 0 1 0* 0	All M is not S. 2 1 1 0 1 0* 0
∴ All S is P. 3 1 0 1 1 1 1 1	∴ All S is P. 3 1 0 1 1 1 1	∴ All S is P. 3 1 0 1 1 1 1	∴ All S is P. 3 1 0 1 1 1 1
$(\forall x) (Mx > \text{``Px})$ $\begin{vmatrix} 4 & 1 & 0 & 0 & 1 & 1 & 0 \\ 5 & 0 & 1 & 1 & 0^* & 1 & 1 \end{vmatrix}$	$(\forall x) (Px > Mx)$ 5 0 1 1 0 1 1	$(\forall x) (Mx > \text{``Px'})$ $\begin{vmatrix} 4 & 1 & 0 & 0 & 1 & 1 & 0 \\ 5 & 0 & 1 & 1 & 0^* & 1 & 1 \end{vmatrix}$	$(\forall x) (Px > \text{``Mx})$ $\begin{vmatrix} 4 & 1 & 0 & 0 & 1 & 1 & 0 \\ 5 & 0 & 1 & 1 & 0^* & 1 & 1 \end{vmatrix}$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
8 0 0 0 1 1 1 1	8 0 0 0 1 1 1 1	8 0 0 0 1 1 1	8 0 0 0 1 1 1
	1 1 1 1 0		
Form: I-EEE	Form: II-EEE	Form: III-EEE	Form: IV-EEE
A A A		3 3 3 A A A	A B B B A A A
S M P M>"P S>"M S>"P	S M P P > "M S > "M S > "P	S M P M>"P M>"S S>"P	S M P P > "M M > "S S > "P
All M is not P. 1 1 1 0* 0* 0	All P is not M. 1 1 1 0* 0* 0	All M is not P. 1 1 1 0* 0* 0	All P is not M. 1 1 1 0* 0* 0
All S is not M. 2 1 1 0 1 0* 1	_ All S is not M. 2 1 1 0 1 0* 1	_ All M is not S. 2 1 1 0 1 0* 1	All M is not S. 2 1 1 0 1 0* 1
∴ All S is not P. 3 1 0 1 1 1 0	. All S is not P. 3 1 0 1 1 0	∴ All S is not P. 3 1 0 1 1 1 0	: All S is not P. 3 1 0 1 1 0
4 1 0 0 1 1 1	4 1 0 0 1 1 1	4 1 0 0 1 1 1	4 1 0 0 1 1 1
$(\forall x) (Mx > {}^{n}Px) = 0 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 +$	$(\forall x) (Px > ^mMx)$	$(\forall x) (Mx > ^nPx)$ 5 0 1 1 0* 1 1	$(\forall x) (Px > ^mMx)$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
8 0 0 0 1 1 1	8 0 0 0 1 1 1	8 0 0 0 1 1 1	8 0 0 0 1 1 1
1 1 1 1 0	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
Form: I-EEI	Form: II-EEI	Form: III-EEI	Form: IV-EEI
E E E E		3 3 3 A A 3	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
All M is not P. All S is not M. ∴ Some S is P.		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
All M is not P. All S is not M. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(\forall x) (Sx > ``Mx)$ $(∀x) (Sx > ``Mx)$ $(∀x) (Sx > ``Mx)$ $(∀x) (Sx > ``Mx)$ $(∀x) (Sx > ``Mx)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $	All M is not P. All M is not S. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	All P is not M. All M is not S. ∴ Some S is P. $(∀x) (Px > ^mX)$ $(∀x) (Mx > ^xSx)$ $(∀x) (Mx > ^xSx)$ $(∀x) (Mx > ^xSx)$ $(∀x) (Px > ^xSx)$
All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > `Px)$ $(\exists x) (\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (\exists x) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land P$	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \wedge Px)$ All P is not M. $(\exists x) \exists \exists x \in A \forall x \in A \exists x \in A $	All M is not P. All M is not S.	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ^mXx)$ ∴ $(\exists x) (Sx \land Px)$ All C is not M. $(\exists x) (Sx \land Px)$ $(\exists x) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists$
All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > `Px)$ $(\exists x) (\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. $(\exists x) (\exists x$	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is not M. 7 Some S is P. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \land Px)$	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ^{m}Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not S. $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All M is not P. $(\exists x) (\exists x) (Sx \land Px)$ $(\exists x) (\exists x) (Sx \land Px)$ All M is not P. $(\exists x) (\exists x) ($	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ^mXx)$ ∴ $(\exists x) (Sx \land Px)$ All Contact M. $(\exists x) (Sx \land Px)$
All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > `Px)$ $(\exists x) (\exists x) (Sx \wedge Px)$ ∴ $(\exists x) (Sx \wedge Px)$ $(\exists x) (Sx \wedge Px)$ $(\exists x) (\exists x) (\exists x) (Sx \wedge Px)$ $(\exists x) (\exists x) (\exists x) (Sx \wedge Px)$ $(\exists x) (\exists x) (\exists x) (Sx \wedge Px)$ $(\exists x) (Sx \wedge Px)$	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \wedge Px)$ All P is not M. $(\exists x) \exists \exists x \in A \forall x \in A \exists x \in A $	All M is not P. All M is not S.	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ^mXx)$ ∴ $(\exists x) (Sx \land Px)$ All C is not M. $(\exists x) (Sx \land Px)$ $(\exists x) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists$
All M is not P. All S is not M.	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (x) (x) (x) (x) (x) (x) (x) (x) (x) $	All M is not P. All M is not S.	All P is not M. All M is not S. Some S is P. $(\forall x) (Px > \text{`Mx})$ $(\exists x) (Sx \land Px)$ All Control M is not S. $(\exists x) (Sx \land Px)$ All D is not M. All M is not S. 1
All M is not P. All S is not M. $ \therefore \text{ Some S is P.} \\ (\forall x) (Mx > ^Px) \\ (\exists x) (\exists x) (Sx \land Px) $ $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \land Px)$	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ^{m}Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not S. $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All M is not P. $(\exists x) (\exists x) (Sx \land Px)$ $(\exists x) (\exists x) (Sx \land Px)$ All M is not P. $(\exists x) (\exists x) ($	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ^mXx)$ ∴ $(\exists x) (Sx \land Px)$ All Contact M. $(\exists x) (Sx \land Px)$
All M is not P. All S is not M.	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(\exists x) (\exists x) (Sx \land Px)$ $Form: II-EEO$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land$	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land $	All P is not M. All M is not S. Some S is P. $(\forall x) (Px > ^m Xx)$ $(\exists x) (Sx \land Px)$ All M is not S. Form: IV-EEO
All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > ^{'}Px)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. All M is not P. 1 1 1 1 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is not M. $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All P is not M. $(\exists x) (\exists x$	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ^{\circ}Px)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. $(\exists 3 \exists 3 \exists \forall \forall \forall 3 \exists 3 \land P)$ 1 1 1 1 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is not M. All P is not M. All P is not M. All D is not S. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(\forall x) (Mx > ``Sx)$ $(\exists x) (Sx \land Px)$ All P is not M. All P is not M. $(\exists x) (\exists x)$
All M is not P. All S is not M. $(\forall x) (Mx > ^{\circ}Px)$ $(\forall x) (Sx > ^{\circ}Mx)$ $(\exists x) (Sx \land Px)$ All M is not P. All S is not M. $(\forall x) (Mx > ^{\circ}Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All M is not P. All S is not M. $(\exists x) (\exists x) ($	All P is not M. All S is not M.	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. All M is not P. $(\forall x) (Mx > ``Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. All M is not P. All M is not S. $(\exists x) (\exists $	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is not M. All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is not M. All M is not S. $(\exists x) (\exists x)$
All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. All S is not M. ∴ Some S is not P. All S is not P. All S is not P. $(\exists x) (\exists $	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(∀x) (Sx > ``Mx)$	All M is not P. All M is not S. ∴ Some S is P. (∀x) (Mx > "Px) ∴ (∃x) (Sx ∧ Px) All M is not P. All M is not P. ∴ Some S is not P. All M is not P. All M i	All P is not M. All M is not S. ∴ Some S is P. (∀x) (Px > "Mx) ∴ (∃x) (Sx ∧ Px) All P is not M. All M is not S. ∴ Some S is P. All P is not M. All M is not S. ∴ (∃x) (Sx ∧ Px) All P is not M. All M is not S. ∴ Some S is not P. All D is not M. All M is not S. ∴ Some S is not P.
All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > ^{''}Px)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > ^{''}Px)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. All S is not M. ∴ Some S is not P. All M is not P. All S is not M. ∴ Some S is not P. All M is not P. All S is not M. ∴ Some S is not P.	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(∀x) (Sx > ``Mx)$ $(x) (x) (x) (x) (x) (x) (x) (x) (x) (x) $	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. $(\exists x) (Sx \land Px)$ All M is not P. $(\exists x) (Sx \land Px)$ All M is not P. All M is not P	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(∀x) (Mx > ``Sx)$ $∴ (∃x) (Sx ∧ Px)$ All P is not M. All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(∀x) (Mx > ``Sx)$ $(∀x) ($
All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > ^{''}Px)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > ^{''}Px)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. All S is not M. ∴ Some S is not P. All M is not P. All S is not M. ∴ Some S is not P. $(\forall x) (Mx > ^{''}Px)$ $(x) (Mx > ^{''}Px)$	All P is not M. All S is not M. Some S is P. $(\forall x) (Px > ``Mx)$ $(\exists x) (\exists x) (Sx \land Px)$ All P is not M. $(\exists x) (Sx \land Px)$ All P is not M. All S is not M. $(\exists x) (Sx \land Px)$ All P is not M. All S is not M. $(\exists x) (Px > ``Mx)$ $(\exists x) (Px > ``M$	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land P$	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(∀x) (Mx > ``Sx)$ $∴ (∃x) (Sx ∧ Px)$ All P is not M. All P is not M. $(\forall x) (Px > ``Mx)$ $(∀x) (Mx > ``Sx)$ $(∀x) (Mx > ``Sx)$ $∴ (∃x) (Sx ∧ Px)$ All P is not M. All M is not S. ∴ Some S is not P. $(\forall x) (Px > ``Mx)$ $(∀x) (Px > ``Mx)$
All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > ^{''}Px)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > ^{''}Px)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. All S is not M. ∴ Some S is not P. $(\forall x) (Mx > ^{''}Px)$ $(\forall x) (Sx \wedge Px)$ $(\forall x) (Sx \wedge Px)$ $(\exists x) (Sx \wedge Px)$ $(\exists$	All P is not M. All S is not M. $(\forall x) (Px > ``Mx)$ $(\exists \exists \exists \exists \exists \forall \forall \exists \land \exists \land \forall \land \land \land \land \land \land \land \land $	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. $(\forall x) (Mx > ``Sx)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. $(\exists x) (Sx \land Px)$ $(\exists x) (Sx $	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ^m X)$ ∴ $(\exists x) (Sx \wedge Px)$ All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ^m X)$ $(\forall x) (Mx > ^m Sx)$ ∴ $(\exists x) (Sx \wedge Px)$ All P is not M. All M is not S. ∴ Some S is not P. $(\forall x) (Px > ^m X)$ $(\forall x) (Px > ^m X$
All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > ^{'}Px)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > ^{'}Px)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. All S is not M. ∴ Some S is not P. $(\forall x) (Mx > ^{'}Px)$ $(\exists x) (Sx \wedge Px)$ $(\forall x) (Mx > ^{'}Px)$ $(\exists x) (Sx \wedge ^{'$	All P is not M. All S is not M.	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. $(\forall x) (Mx > ``Sx)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. $(\exists x) (Sx \land Px)$ $(\exists x) (Sx $	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(∀x) (Mx > ``Sx)$ ∴ $(∃x) (Sx \land Px)$ All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(∀x) (Mx > ``Sx)$ ∴ $(∃x) (Sx \land Px)$ All P is not M. All M is not S. ∴ Some S is not P. $(\forall x) (Px > ``Mx)$ $(∀x) (Mx > ``Sx)$ $∴ (∃x) (Sx \land ``Px)$ $(∀x) (Mx > ``Sx)$ $(∃x) (Sx \land ``Px)$ $(∀x) (Mx > ``Sx)$ $(∃x) (Sx \land ``Px)$
All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > ^{''}Px)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. All S is not M. ∴ Some S is P. $(\forall x) (Mx > ^{''}Px)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. All S is not M. ∴ Some S is not P. $(\forall x) (Mx > ^{''}Px)$ $(\forall x) (Sx \wedge Px)$ $(\forall x) (Sx \wedge Px)$ $(\exists x) (Sx \wedge Px)$ $(\exists$	All P is not M. All S is not M. $(\forall x) (Px > ``Mx)$ $(\exists \exists \exists \exists \exists \forall \forall \exists \land \exists \land \forall \land \land \land \land \land \land \land \land $	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. $(\forall x) (Mx > ``Sx)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. $(\exists x) (Sx \land Px)$ $(\exists x) (Sx $	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ^m X)$ ∴ $(\exists x) (Sx \wedge Px)$ All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ^m X)$ $(\forall x) (Mx > ^m Sx)$ ∴ $(\exists x) (Sx \wedge Px)$ All P is not M. All M is not S. ∴ Some S is not P. $(\forall x) (Px > ^m X)$ $(\forall x) (Px > ^m X$

All M is not P. Some S is M. All S is P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Sx \land Mx)$ $(\forall x) (Sx > Px)$	Form: I-EIA	Form: II-EIA All P is not M. Some S is M. All S is P. $(\forall x) (Px > ^mx)$ $(\forall x) (Sx > Px)$ Form: II-EIE Form: II-EIE B	Form: III-EIA All M is not P. Some M is S. All S is P. $(\forall x) (Mx > {}^{\prime}Px)$ $(\forall x) (Sx > Px)$ Form: III-EIE Form: III-EIE Form: III-EIA	Form: IV-EIA All P is not M. Some M is S. All S is P. $(\forall x) (Px > ^mx)$ $(\exists x) (Mx \land Sx)$ $(\forall x) (Sx > Px)$ Form: IV-EIE
All M is not P. Some S is M. All S is not P. $(\forall x) (Mx > ^"Px)$ $(\exists x) (Sx \wedge Mx)$ $(\forall x) (Sx > ^"Px)$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	All P is not M. Some S is M. All S is not P. $(\forall x) (Px > ``Mx)$ $(\exists x) (Sx \wedge Mx)$ $(\exists x) (Sx \wedge Tx)$	All M is not P. Some M is S. All S is not P. $(\forall x) (Mx > \text{"Px})$ $(\exists x) (Mx \land Sx)$ $(\forall x) (Sx > \text{"Px})$ $(\exists x) (Xx > \text{"Px})$	All P is not M. Some M is S. All S is not P. $(\forall x) (Px > `Mx)$ $(\exists x) (Mx \land Sx)$ $(\forall x) (Sx > `Px)$ $1 1 1 1 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0$
All M is not P. Some S is M. Some S is P. $(\forall x) (Mx > \text{"Px})$ $(\exists x) (Sx \land Mx)$ $(\exists x) (Sx \land Px)$	Form: I-EII 3	Form: II-EII All P is not M. Some S is M. Some S is P. $(\forall x) (Px > ``Mx)$ $(\exists x) (Sx \land Px)$ Form: II-EII $\exists \exists \exists \exists \exists \forall \forall \exists \exists$	Form: III-EII All M is not P. Some M is S. \(\) \(\	Form: IV-EII All P is not M. Some M is S. Some S is P. $(\forall x) (Px > ^mx)$ $(\exists x) (Sx \land Px)$ Form: IV-EII
		1 1 1 1 0	1 1 1 1 0	1 1 1 1 0

Form: I-EOA	Form: II-EOA	Form: III-EOA	Form: IV-EOA
3 3 A 3 A		3 3 3 A 3 A	3 3 A 3 A
S M P $M > "P$ $S \wedge "M$ $S > P$	S M P $P > M$ $S \wedge M$ $S > P$	S M P $M > "P$ $M \land "S$ $S > P$	S M P $P > M$ $M \land S$ $S > P$
All M is not P. 1 1 1 1 0* 0 1	All P is not M. 1 1 1 1 0* 0 1	All M is not P. 1 1 1 1 0* 0 1	All P is not M. 1 1 1 1 0* 0 1
Some S is not M. 2 1 1 0 1 0 0	Some S is not M. 2 1 1 0 1 0 0	Some M is not S. 2 1 1 0 1 0 0	Some M is not S. 2 1 1 0 1 0 0
∴ All S is P. 3 1 0 1 1 1 1	∴ All S is P. 3 1 0 1 1 1 1	∴ All S is P. 3 1 0 1 1 0 1	∴ All S is P. 3 1 0 1 1 0 1
4 1 0 0 1 1 0	4 1 0 0 1 1 0	4 1 0 0 1 0 0	4 1 0 0 1 0 0
$(\forall x) (Mx > ^nPx) $	$(\forall x) (Px > Mx) $	$(\forall x) (Mx > "Px)$ 5 0 1 1 0* 1 1	$(\forall x) (Px > Mx) $
$(\exists x) (Sx \land ``Mx) $	$ (\exists x) (Sx \land ^{^{\circ}M}x) $	$(\exists x) (Mx \land "Sx) \qquad \boxed{6} \qquad \boxed{0} \qquad \boxed{1} \qquad \boxed{1} \qquad \boxed{1}$	$(\exists x) (Mx \land "Sx) $
$\therefore (\forall x) (Sx > Px) \boxed{7} \boxed{0} \boxed{0} \boxed{1} \boxed{1} \qquad \boxed{0} \qquad \boxed{1}$	$\therefore (\forall x) (Sx > Px) \boxed{7} \boxed{0} \boxed{0} \boxed{1} \qquad \boxed{0} \qquad \boxed{1}$	$\therefore (\forall x) (Sx > Px) \boxed{7} \boxed{0} \boxed{0} \boxed{1} \boxed{1} \qquad \boxed{0} \qquad \boxed{1}$	$\therefore (\forall x) (Sx > Px) 7 0 0 1 1 0 1$
8 0 0 0 1 0 1	8 0 0 0 1 0 1	8 0 0 0 1 0 1	8 0 0 0 1 0 1
1 1 1 1 0	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
Form: I-EOE	Form: II-EOE	Form: III-EOE	Form: IV-EOE
A F E E E E		A E E E E E E E E E E E E E E E E E E E	
S M P M>"P S \(^m\) S > "P	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	S M P P > "M M \\"S S > "P
All M is not P. 1 1 1 1 0* 0 0	All P is not M. 1 1 1 1 0* 0 0	All M is not P. 1 1 1 1 0* 0 0	All P is not M. 1 1 1 0* 0 0
Some S is not M. 2 1 1 0 1 0 1	Some S is not M. 2 1 1 0 1 0 1	Some M is not S. 2 1 1 0 1 0 1	Some M is not S. 2 1 1 0 1 0 1
∴ All S is not P. 3 1 0 1 1 1 0	: All S is not P. 3 1 0 1 1 1 0	∴ All S is not P. 3 1 0 1 1 0 0	∴ All S is not P. 3 1 0 1 1 0 0
4 1 0 0 1 1 1	4 1 0 0 1 1 1	4 1 0 0 1 0 1	4 1 0 0 1 0 1
$(\forall x) (Mx > Px)$ 5 0 1 1 0* 0 1	$(\forall x) (Px > Mx) = 5 = 0 = 1 = 0 = 0 = 1$	$(\forall x) (Mx > Px)$ 5 0 1 1 0* 1 1	$(\forall x) (Px > Mx)$ 5 0 1 1 0* 1 1
$(\exists x)(Sx \land "Mx)$ 6 0 1 0 1 0 1	$(\exists x)(Sx \land ``Mx)$ 6 0 1 0 1 0 1	$(\exists x) (Mx \land \text{``S}x)$ 6 0 1 0 1 1 1	$(\exists x) (Mx \land "Sx)$ 6 0 1 0 1 1 1
$\therefore \overline{(\forall x)(Sx > "Px)} 7 0 0 1 1 0 1$	$\therefore \overline{(\forall x) (Sx > ^mPx)} 7 0 0 1 1 0 1$	$\therefore \overline{(\forall x)(Sx > ^mPx)} 7 0 0 1 1 0 1$	$\therefore (\forall x) (Sx > Px) $
8 0 0 0 1 0 1	8 0 0 0 1 0 1	8 0 0 0 1 0 1	8 0 0 0 1 0 1
1 1 1 1 0	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
Form: I-EOI	Form: II-EOI	Form: III-EOI	Form: IV-EOI
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
All M is not P. 1 1 1 1 0* 0 1*	All P is not M. 1 1 1 1 0* 0 1*	All M is not P. 1 1 1 1 0* 0 1*	All P is not M. 1 1 1 1 0* 0 1*
Some S is not M. 2 1 1 0 1 0 0	Some S is not M. 2 1 1 0 1 0 0	Some M is not S. 2 1 1 0 1 0 0	Some M is not S. 2 1 1 0 1 0 0
∴ Some S is P. 3 1 0 1 1 1 1*	∴ Some S is P. 3 1 0 1 1 1 1*	∴ Some S is P. 3 1 0 1 1 0 1*	∴ Some S is P. 3 1 0 1 1 0 1*
4 1 0 0 1 1 0	4 1 0 0 1 1 0	4 1 0 0 1 0 0	4 1 0 0 1 0 0
$(\forall x) (Mx > Px)$ 5 0 1 1 0* 0 0	$(\forall x) (Px > Mx) = 0 = 0 = 0$	$(\forall x) (Mx > Px) $	$(\forall x) (Px > Mx) $
$(\exists x) (Sx \land ``Mx)$ 6 0 1 0 1 0 0	$(\exists x) (Sx \land \tilde{M}x) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 0$	$(\exists x) (Mx \land "Sx) \qquad 6 \qquad 0 \qquad 1 \qquad \qquad 1 \qquad \qquad 0$	$(\exists x) (Mx \land "Sx)$ 6 0 1 0 1 1 0
$\therefore (\exists x) (Sx \land Px) 7 0 0 1 1 0 0$	$\therefore (\exists x) (Sx \land Px) \qquad 7 \qquad 0 \qquad 0 \qquad 1 \qquad 1 \qquad 0 \qquad 0$	$\therefore (\exists x)(Sx \land Px) 7 0 0 1 1 0 0$	$\therefore (\exists x) (Sx \land Px) $
8 0 0 0 1 0 0	8 0 0 0 1 0 0	8 0 0 0 1 0 0	8 0 0 0 1 0 0
1 1 1 1 0	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
Form: I-EOO	Form: II-EOO	Form: III-EOO	Form: IV-EOO
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
All M is not P. 1 1 1 1 0* 0 0	All P is not M. 1 1 1 1 0* 0 0	All M is not P. 1 1 1 1 0* 0 0	All P is not M. 1 1 1 1 0* 0 0
Some S is not M. 2 1 1 0 1 0 1*	Some S is not M. 2 1 1 0 1 0 1*	Some M is not S. 2 1 1 0 1 0 1*	Some M is not S. 2 1 1 0 1 0 1*
∴ Some S is not P. 3 1 0 1 1 1 0	.: Some S is not P. 3 1 0 1 1 0	Some S is not P. 3 1 0 1 1 0 0	∴ Some S is not P. 3 1 0 1 1 0 0
4 1 0 0 1 1 1*	4 1 0 0 1 1 1*	4 1 0 0 1 0 1*	4 1 0 0 1 0 1*
$(\forall x) (Mx > ^nPx)$ 5 0 1 1 0* 0	$(\forall x) (Px > Mx)$ 5 0 1 1 0* 0	$(\forall x) (Mx > "Px)$ 5 0 1 1 0* 1 0	$(\forall x) (Px > Mx)$ 5 0 1 1 0* 1 0
$(\exists x)(Sx \land ``Mx)$ 6 0 1 0 1 0 0	$(\exists x)(Sx \land ``Mx) $	$(\exists x) (Mx \land "Sx) $	$(\exists x) (Mx \land "Sx)$ 6 0 1 0 1 1 0
$\therefore \overline{(\exists x)(Sx \land "Px)} 7 0 0 1 1 0 0$	$\therefore \overline{(\exists x)(Sx \land "Px)} 7 0 0 1 1 0 0$	$\therefore \overline{(\exists x)(Sx \land "Px)} 7 0 0 1 1 0 0$	$\therefore (\exists x) (Sx \land "Px) $
	(===, (===, - - - -	(\(\frac{1}{2}\)(\(\frac{1}{2	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	8 0 0 1 0 0 1 1 1 1 1 0	8 0 0 0 1 0 0	8 0 0 0 1 0 0 1 1 1 1 1 0

Form: I-IAA	Form: II-IAA	Form: III-IAA	Form: IV-IAA
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is P.	Some P is M.	Some M is P. 1 1 1 1 1 1 1 All M is S. 2 1 1 0 0 1 0	Some P is M.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	∴ All S is P. 3 1 0 1 0 1 1	∴ All S is P. 3 1 0 1 0 1 1
4 1 0 0 0 0* 0	4 1 0 0 0 0* 0	4 1 0 0 0 1 0	4 1 0 0 0 1 0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
8 0 0 0 1 1	8 0 0 0 1 1	8 0 0 0 1 1	8 0 0 0 0 1 1
1 1 1 1 0	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
Form: I-IAE	Form: II-IAE	Form: III-IAE	Form: IV-IAE
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is P. 1 1 1 1 1 0	Some P is M. 1 1 1 1 1 0	Some M is P. 1 1 1 1 1 0	Some P is M. 1 1 1 1 1 0
All S is M. 2 1 1 0 0 1 1	All S is M. 2 1 1 0 0 1 1	All M is S. 2 1 1 0 0 1 1	All M is S. 2 1 1 0 0 1 1
\therefore All S is not P. $\begin{vmatrix} 3 & 1 & 0 & 1 & 0 & 0^* & 0 \\ 4 & 1 & 0 & 0 & 0 & 0^* & 1 \end{vmatrix}$	∴ All S is not P. 3 1 0 1 0 0* 0 0* 1	∴ All S is not P. 3 1 0 1 0 1 0 4 1 0 4 1 0 0 0 1 1 1	∴ All S is not P. 3 1 0 1 0 1 0 4 1 0 0 0 1 1
$(\exists x) (Mx \land Px)$ 5 0 1 1 1 1 1	$(\exists x) (Px \land Mx)$ 5 0 1 1 1 1 1	$(\exists x) (Mx \land Px) \begin{vmatrix} 5 & 0 & 1 & 1 & 0 \\ 5 & 0 & 1 & 1 & 1 & 0 \end{vmatrix}$	$(\exists x) (Px \land Mx) $
$(\forall x) (Sx > Mx)$ 6 0 1 0 0 1 1	$(\forall x) (Sx > Mx)$ 6 0 1 0 0 1 1	$(\forall x) (Mx > Sx) $	$(\forall x) (Mx > Sx) $
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
1 1 1 1 0	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
Form: I-IAI	Form: II-IAI	Form: III-IAI (15, 19, 24)	Form: IV-IAI (15, 19, 24)
Form: I-IAI	Form: II-IAI	Form: III-IAI (15, 19, 24)	Form: IV-IAI (15, 19, 24)
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is P. $A = A = A = A = A = A = A = A = A = A $	Some P is M. All S is M. ∴ Some S is P.	Some M is P. $\frac{1}{1}$	Some P is M. All M is S. ∴ Some S is P.
Some M is P. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Some P is M. All S is M. Some S is P. $(\exists x) (Px \land Mx)$ $\begin{bmatrix} \exists & \exists & \exists & \exists & \forall & \exists \\ S & M & P & P \land M & S > M & S \land P \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 2 & 1 & 1 & 0 & 0 & 1 & 0 \\ 3 & 1 & 0 & 1 & 0 & 0^* & 1^* \\ 4 & 1 & 0 & 0 & 0 & 0^* & 0 \\ 5 & 0 & 1 & 1 & 1 & 1 & 0 \\ \end{bmatrix}$	Some M is P. $\frac{1}{All\ M\ is\ S}$. ∴ Some S is P. $\frac{1}{All\ M\ (s\ N)}$ $\frac{1}{All\ M\ ($	Some P is M. All M is S. ∴ Some S is P.
Some M is P. $A = A = A = A = A = A = A = A = A = A $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P. All M is S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Mx > Sx)$ ∴ $(\exists x) (Sx \land Px)$ $($	Some P is M. All M is S. ∴ Some S is P.
Some M is P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Sx \land Px)$	Some P is M. All S is M. Some S is P. $(\exists x) (Px \land Mx) (\forall x) (Sx \land Px)$ $(\exists x) ($	Some M is P. All M is S. ∴ Some S is P. $(∃x) (Mx \land Px)$ $(∃x) (Sx \land P$	Some P is M. All M is S. ∴ Some S is P. $(∃x) (Px \land Mx)$ $(∀x) (Mx > Sx)$ $∴ (∃x) (Sx \land Px)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $
Some M is P. All S is M. ∴ Some S is P. $(∃x) (Mx \land Px)$ $(∃x) (Sx \land Px)$ $(∃x) (Sx$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P. All M is S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Mx > Sx)$ ∴ $(\exists x) (Sx \land Px)$ $($	Some P is M. All M is S. ∴ Some S is P. $(∃x) (Px ∧ Mx) (∀x) (Mx > Sx)$ $(∃x) (Sx ∧ Px)$ $(∃x) (Sx ∧ Px)$ $(∃x) (Sx ∧ Px)$ $(∃x) (Sx ∧ Px)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $
Some M is P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $($	Some P is M. All S is M. Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Fx) (Fx) (Fx) (Fx) (Fx) (Fx) (Fx) ($	Some M is P. All M is S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $($	Some P is M. All M is S. ∴ Some S is P. $(∃x) (Px \land Mx)$ $(∃x) (Sx \land Px)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (∃x) (Sx \land Px)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃$
Some M is P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land Px) (\exists x \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴	Some P is M. All S is M. Some S is P. $(\exists x) (Px \land Mx) (\forall x) (Sx \land Px)$ $(\exists x) ($	Some M is P. All M is S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x)$	Some P is M. All M is S. ∴ Some S is P. $(∃x) (Px ∧ Mx) (∀x) (Mx > Sx)$ ∴ $(∃x) (Sx ∧ Px)$ $(∃x) (Sx ∧ P$
Some M is P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $($	Some P is M. All S is M. Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \land Px)$ $(\exists x)$	Some M is P. All M is S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land$	Some P is M. All M is S. ∴ Some S is P. $(∃x) (Px ∧ Mx) (∀x) (Mx > Sx)$ ∴ $(∃x) (Sx ∧ Px)$ $(∃x) (Sx ∧ P$
Some M is P.	Some P is M. All S is M. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ Some P is M. All S is M. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \land Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ Some P is M. All S is M. All S is M. $(\exists x) (Px \land Mx)$ $(\exists $	Some M is P. All M is S. ∴ Some S is P. $(∃x) (Mx \land Px)$ $(∀x) (Mx > Sx)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (Sx \land$	Some P is M. All M is S. Some S is P. $(\exists x) (Px \land Mx) (\forall x) (Mx > Sx)$ $(\exists x) (Sx \land Px)$ $(\exists x) ($
Some M is P.	Some P is M. All S is M. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx > Px) The standard sta	Some M is P. All M is S. ∴ Some S is P. $(∃x) (Mx \land Px)$ $(∃x) (Sx \land Px)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (Sx \land$	Some P is M. All M is S. ∴ Some S is P. $(∃x) (Px \land Mx)$ $(∀x) (Mx > Sx)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (Sx \land$
Some M is P.	Some P is M. All S is M. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx > Px) The state of the st	Some M is P. All M is S. ∴ Some S is P. $(∃x) (Mx \land Px)$ $(∃x) (Sx \land Px)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (Sx \land$	Some P is M. All M is S. ∴ Some S is P. $(∃x) (Px \land Mx)$ $(∀x) (Mx > Sx)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (Fx \land Mx)$ $(∃x) (Fx \land$
Some M is P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Sx > Mx)$ $(\exists x) (Sx > Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Mx \land Px)$	Some P is M. All S is M. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx > Px) $(∃x) (Sx > Mx)$ ∴ (∃x) (Sx ∧ Px) Bome P is M. All S is M. ∴ Some S is not P. Some P is M. All S is M. ∴ Some S is not P. Some P is M. All S is M. ∴ Some S is not P. (∃x) (Px ∧ Mx) $(∀x) (Sx > Mx)$ $(∀x) (Sx > Mx)$ $(∀x) (Sx ∧ Px)$ $(∃x) (Fx ∧ Mx)$ $(∃x) (Fx ∧ Fx)$	Some M is P. All M is S. ∴ Some S is P. $(∃x) (Mx \land Px)$ $(∃x) (Sx \land Px)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x)$	Some P is M. All M is S. ∴ Some S is P. $(∃x) (Px \land Mx)$ $(∀x) (Mx > Sx)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x)$ $(∃x$
Some M is P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land Px)$	Some P is M. All S is M. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx > Px) $(∃x) (Sx > Mx)$ ∴ (∃x) (Sx ∧ Px) Some P is M. All S is M. ∴ (∃x) (Sx ∧ Px) $(∃x) (Sx ∧ Px)$ $(∃x) (∃x) (Sx ∧ Px)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $	Some M is P. All M is S. ∴ Some S is P. $(∃x) (Mx \land Px)$ $(∃x) (Sx \land Px)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x)$	Some P is M. All M is S. ∴ Some S is P. $(∃x) (Px \land Mx)$ $(∀x) (Mx > Sx)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (Fx \land Mx)$ $(∃x) (Fx \land Mx)$ $(∃x) (Fx \land Mx)$ $(∀x) (Mx > Sx)$ $(∃x) (Sx \land Px)$ $(∃x) (Fx \land Mx)$ $(∀x) (Mx > Sx)$ $(∃x) (Sx \land Px)$ $(∃x) (xx) (xx) (xx)$ $(xx) (xx) (xx) (xx)$ $(xx) (xx) (xx) (xx) (xx)$ $(xx) (xx) (xx) (xx) (xx) (xx)$ $(xx) (xx) (xx) (xx) (xx) (xx) (xx) (xx)$
Some M is P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Sx > Mx)$ $(\exists x) (Sx > Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Mx \land Px)$	Some P is M. All S is M. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx > Px) $(∃x) (Sx > Mx)$ ∴ (∃x) (Sx ∧ Px) Bome P is M. All S is M. ∴ Some S is not P. Some P is M. All S is M. ∴ Some S is not P. Some P is M. All S is M. ∴ Some S is not P. (∃x) (Px ∧ Mx) $(∀x) (Sx > Mx)$ $(∀x) (Sx > Mx)$ $(∀x) (Sx ∧ Px)$ $(∃x) (Fx ∧ Mx)$ $(∃x) (Fx ∧ Fx)$	Some M is P. All M is S. ∴ Some S is P. $(∃x) (Mx \land Px)$ $(∃x) (Sx \land Px)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x)$	Some P is M. All M is S. ∴ Some S is P. $(∃x) (Px \land Mx)$ $(∀x) (Mx > Sx)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x)$ $(∃x$

	Form: I-IEA			Form: II-IEA			Form: III-IEA			Form: IV-IEA	
	3 3 3 3	\forall		3 3 3 3	A A		A E E E	\forall			3 A A
		S > "M S > P		S M P $P \land M$			$S M P M \wedge P M > "S$	S > P		S M P P	\wedge M M > "S S > P
	1 1 1 1	0* 1	Some P is M.	1 1 1 1 1	0* 1		1 1 1 1 0*	1	Some P is M.	1 1 1 1	1 0* 1
	1 1 0 0	0* 0		2 1 1 0 0	0* 0		1 1 0 0 0*	0	All M is not S.		0 0* 0
	1 0 1 0	1 1	∴ All S is P.	3 1 0 1 0	1 1		1 0 1 0 1	1	∴ All S is P.		0 1 1
(7-) (N- A P-) 5		1 0	(¬) (¬ ^ M)	4 1 0 0 0	1 0		1 0 0 0 1	0	(¬-) (¬- + W-)		0 1 0
	0 1 1 1 0	1 1 1	$(\exists x) (Px \land Mx)$ $(\forall x) (Sx > ^Mx)$	5 0 1 1 1 6 0 1 0 0	1 1		0 1 1 1 1 1 0 1 0 1	1 1	$(\exists x) (Px \land Mx)$ $(\forall x) (Mx > \tilde{S}x)$		1 1 1 0 1 1
	0 1 0 0	1 1 1		7 0 0 1 0	1 1	$\begin{array}{c c} (\forall x) (\exists x > \exists x) & \delta \\ (\forall x) (\exists x > \exists x) & 7 \end{array}$		1	$(\forall x)(\exists x > \exists x)$ $(\forall x)(\exists x > \exists x)$		0 1 1
(۷) (5) / 1		1 1	(VX)(SX > FX)	8 0 0 0 0	1 1		0 0 0 0 1	1	(VX)(SX > FX)		0 1 1
	1 1 1 1	1 0		1 1 1 1	1 0		1 1 1 1 1	0			1 1 0
								-			
	Form: I-IEE			Form: II-IEE			Form: III-IEE			Form: IV-IEE	
	3 3 3 3	A A			A A		3	\forall			B A A
		S > "M S > "P		S M P P A M	S > "M S > "P		S M P $M \wedge P$ $M > "S$	S > "P			∧ M M > "S S > "P
Some M is P. 1		0* 0	Some P is M.	1 1 1 1 1	0* 0	Some M is P. 1	1 1 1 1 0*	0	Some P is M.		1 0* 0
All S is not M. 2	1 1 0 0	0* 1	All S is not M.	2 1 1 0 0	0* 1	All M is not S. 2	1 1 0 0 0*	1	All M is not S.	2 1 1 0	0 0* 1
∴ All S is not P. 3	1 0 1 0	1 0	∴ All S is not P.	3 1 0 1 0	1 0	∴ All S is not P. 3	1 0 1 0 1	0	∴ All S is not P.	3 1 0 1	0 1 0
	1 0 0 0	1 1		4 1 0 0 0	1 1	4	1 0 0 0 1	1		4 1 0 0	0 1 1
	0 1 1 1	1 1		5 0 1 1 1	1 1		0 1 1 1 1	1	$(\exists x) (Px \land Mx)$		1 1 1
$(\forall x) (Sx > Mx) \qquad 6$		1 1	$\frac{(\forall x) (Sx > \text{M}x)}{}$	6 0 1 0 0	1 1		0 1 0 0 1	1	$\frac{(\forall x) (Mx > "Sx)}{}$		0 1 1
	0 0 1 0	1 1	$\therefore (\forall x) (Sx > ^nPx)$		1 1	$\therefore (\forall x) (Sx > ^{n}Px) \qquad 7$		1	$\therefore (\forall x) (Sx > "Px)$		0 1 1
	0 0 0 0	1 1		8 0 0 0 0	1 1	8	0 0 0 0 1	1			0 1 1
	1 1 1 1	1 0		1 1 1 1	1 0		1 1 1 1 1	0		1 1 1	1 1 0
	Form: I-IEI			Form: II-IEI			Form: III-IEI			Form: IV-IEI	
	3 3 3 3	∀ E ∀		3 3 3 3	A 3		B B B A	3		B B B	E V E
	∃ ∃ ∃ ∃ S M P M∧P	S > "M S ∧ P		∃ ∃ ∃ S M P P ∧ M	S > "M S ∧ P		∃ ∃ ∃ ∀ S M P M ∧ P M > "S	S ∧ P		∃ ∃ ∃ S M P P	∧ M M > "S S ∧ P
Some M is P. 1	∃ ∃ ∃ S M P M ∧ P 1 1 1 1	S > "M S \ P 0 * 1 *	Some P is M.	∃ ∃ ∃ ∃ ∃	S > "M S ∧ P 0* 1*		∃ ∃ ∃ ∀ S M P M ∧ P M > "S 1 1 1 1 0*	S ∧ P 1*			$ \begin{array}{c cccc} $
Some M is P. All S is not M.	∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1 0 0	S > "M S ∧ P 0* 1* 0* 0	All S is not M.	∃ ∃ ∃ S M P P ∧ M 1 1 1 1 1 2 1 1 0 0	S > "M S ∧ P 0* 1* 0* 0	All M is not S. 2	∃ ∃ ∃ ∀	S ∧ P 1* 0	All M is not S.	∃ ∃ ∃ S M P P 1 1 1 1 2 1 1 0	$ \begin{array}{c cccc} \land M & M > \text{``S} & S \land P \\ \hline 1 & 0^* & 1^* \\ 0 & 0^* & 0 \\ \end{array} $
Some M is P. All S is not M. ∴ Some S is P. 3	∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1 1 0 0 1 0 1 0	S > "M S ∧ P 0* 1* 0* 0 1 1*	All S is not M.	∃ ∃ ∃ S M P P ∧ M 1 1 1 1 1 2 1 1 0 0 3 1 0 1 0	S > "M S ∧ P 0* 1* 0* 0 1 1*	All M is not S. ∴ Some S is P. 2 3	∃ ∃ ∃ ∀ S M P M ∧ P M > "S 1 1 1 0* 1 0 1 0 0* 1 0 1 0 1	S \(\text{P} \) 1* 0 1*		3 3 3 S M P P P 1 1 1 1 1 2 1 1 0 3 1 0 1	$ \begin{array}{c cccc} \land M & M > \text{``S} & S \land P \\ \hline 1 & 0^* & 1^* \\ \hline 0 & 0^* & 0 \\ \hline 0 & 1 & 1^* \\ \end{array} $
Some M is P. All S is not M. ∴ Some S is P. 3	∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1 0 0 0 1 0 0 0	S > "M S \ P P O * 1 * O * O T T * O * O T T T * O * O T T T * O * O	All S is not M. ∴ Some S is P.	∃	S > "M S \ P P P P P P P P P P P P P P P P P P	All M is not S. ∴ Some S is P. 2 3	∃ ∃ ∃ ∃ ∀ S M P M ∧ P M > "S 1 1 1 1 0 0 0 0 0 1	S \land P 1* 0 1* 0 0 1* 0	All M is not S. ∴ Some S is P.	3 3 3 S M P P P P P P P P P P P	
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (\exists x) $	∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1 0 0 0 1 0 0 0 0 0 0 0 0 1 1 1	S > "M S \ P	All S is not M. \therefore Some S is P. $(\exists x) (Px \land Mx)$	∃	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	All M is not S. Some S is P. $ (\exists x) (Mx \land Px) $ 5	∃ ∃ ∃ ∀ S M P M ∧ P M > "S 1 1 1 0 * 1 1 0 0 * 1 0 1 0 1 1 0 0 0 1 1 0 0 0 1 0 1 1 1 1	S \(P \) 1* 0 1* 0 0 0	All M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$	3 3 3 S M P P P P P P P P P P P	
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > ``Mx)$ 6	∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1 0 0 0 1 0 0 0 1 0 0 0 0 1 1 1 0 1 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	All S is not M. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx > ^Mx)$	∃	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	All M is not S. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Mx > x)$ $(\forall x) (Mx > x)$ $(\forall x) (Mx > x)$	S M P M ∧ P M > "S 1 1 1 0 * 1 0 1 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 0 1 1 1 1 0 1 0 0 1 0 1 0 0 1	S \(\text{P} \) 1* 0 1* 0 0 0 0	All M is not S. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > "Sx)$	Hermitian Herm	$\begin{array}{c ccccc} \land \ M & M > \ ^*S & S \land P \\ \hline 1 & 0 & 1 & \\ 0 & 0 & 0 \\ \hline 0 & 1 & 1 & \\ 0 & 1 & 0 \\ \hline 1 & 1 & 0 \\ 0 & 1 & 0 \\ \hline \end{array}$
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > \text{`Mx})$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ 7	S M P M ∧ P 1 1 1 1 1 0 0 0 1 0 0 0 1 0 0 0 0 1 1 1 0 1 0 0 0 0 1 0 0 0 1 0	S > "M S \ P	All S is not M. $\therefore \text{Some S is P.}$ $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt Mx)$ $\therefore (\exists x) (Sx \land Px)$	∃	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	All M is not S. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Mx > \tilde{x}x)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ 7	S M P M ∧ P M ∧ P M > "S 1 1 1 0 * 0 * 1 0 1 0 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 1 0 1 1 1 1 0 1 0 0 1 0 0 1 0 1	S \(P \) 1* 0 1* 0 0 0	All M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$	Hermitian Herm	$\begin{array}{c ccccc} \land \ M & M > \ ^*S & S \land P \\ \hline 1 & 0 & 1 & \\ 0 & 0 & 0 \\ \hline 0 & 1 & 1 & \\ 0 & 1 & 0 \\ \hline 1 & 1 & 0 \\ 0 & 1 & 0 \\ \hline \end{array}$
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > ``Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ 8	S M P M ∧ P 1 1 1 1 1 0 0 0 1 0 0 0 1 0 0 0 0 1 1 1 0 1 0 0 0 0 1 0 0 0 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	All S is not M. $\therefore \text{Some S is P.}$ $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt Mx)$ $\therefore (\exists x) (Sx \land Px)$	∃	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	All M is not S. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Mx > \tilde{x}x)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ 7	S M P M ∧ P M > "S 1 1 1 0 * 1 0 1 0 1 1 0 1 0 1 1 0 0 0 1 1 0 0 0 1 1 0 1 1 1 0 1 0 0 1 0 0 1 0 1 0 0 1 0 1	S \(P \) 1* 0 1* 0 0 0 0	All M is not S. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > "Sx)$	Hermitian Herm	$\begin{array}{c ccccc} \land \ M & M > \ ^*S & S \land P \\ \hline 1 & 0 * & 1 * \\ \hline 0 & 0 * & 0 \\ \hline 0 & 1 & 1 * \\ \hline 0 & 1 & 0 \\ \hline 1 & 1 & 0 \\ \hline 0 & 1 & 0 \\ \hline 0 & 1 & 0 \\ \hline \end{array}$
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > ``Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ 8	S M P M ∧ P 1 1 1 1 1 0 0 0 1 0 0 0 1 0 0 0 0 1 1 1 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	All S is not M. $\therefore \text{Some S is P.}$ $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt Mx)$ $\therefore (\exists x) (Sx \land Px)$	∃	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	All M is not S. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Mx > \tilde{x}x)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ 7	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	S \(P \) 1* 0 1* 0 0 0 0 0 0	All M is not S. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > "Sx)$	Hermitian Herm	$\begin{array}{c ccccc} \land \ M & M > \begin{tabular}{c cccc} $\land M & M > \begin{tabular}{c cccc} $S \land P \\ \hline 1 & 0 * & 1* \\ \hline 0 & 0 * & 0 \\ \hline 0 & 1 & 1* \\ \hline 0 & 1 & 0 \\ \hline 1 & 1 & 0 \\ \hline 0 & 1 & 0 \\ \hline 0 & 1 & 0 \\ \hline 0 & 1 & 0 \\ \hline \end{array}$
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > `Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ 8	S M P M ∧ P 1 1 1 1 1 0 0 0 1 0 0 0 1 0 0 0 0 1 1 1 0 1 0 0 0 0 1 0 0 0 0 0 0 0 0 0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	All S is not M. $\therefore \text{Some S is P.}$ $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt Mx)$ $\therefore (\exists x) (Sx \land Px)$	∃	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	All M is not S. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Mx > \tilde{x}x)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ 7	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	S \(P \) 1* 0 1* 0 0 0 0 0 0	All M is not S. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > "Sx)$	Hermitian Herm	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > `Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ 8	∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1 1 0 0 1 0 1 0 1 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 1 1 1 1	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	All S is not M. $\therefore \text{Some S is P.}$ $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt Mx)$ $\therefore (\exists x) (Sx \land Px)$	∃	S>"M S∧P 0* 1* 0* 0 1 1* 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 V ∃	All M is not S. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Mx > \tilde{x}x)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ 7	S M P M ∧ P M ∧ P M > "S 1 1 1 0 * 0 * 1 0 1 0 1 1 0 1 0 1 1 0 0 0 1 1 0 0 0 1 0 1 1 1 1 0 0 1 0 1 0 0 0 0 1 1 1 1 1 1	S ∧ P 1* 0 1* 0 0 0 0 0 0	All M is not S. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > "Sx)$	Here Here Here Here Here	∧ M M > "S S ∧ P 1 0* 1* 0 0* 0 0 1 1* 0 1 0 1 1 0 0 1 0 0 1 0 0 1 0 1 1 0 1 1 0
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > ^mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $= 8$	∃ ∃ ∃ ∃ ∃	S > "M S ∧ P 0* 1* 0* 0 1 1* 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0	All S is not M. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt Mx)$ $\therefore (\exists x) (Sx \land Px)$	∃	S>"M S \ P O P O P O P O P O P O P O P O P O P	All M is not S. $\therefore \text{ Some S is P.}$ $(\exists x) (Mx \land Px)$ $(\forall x) (Mx > ^{x}x)$ $\therefore (\exists x) (Sx \land Px)$ \vdots	∃ ∃ ∃ ∃ ∀ S M P M ∧ P M > "S 1 1 1 1 0 0 0 0 1 1 0 1 0 0 1 1 1 0 1 0 0 1 1 0 1 0 0 1 1 0 1 0 1 0 0 0 1 1 0 0 1 0 0 1 1 0 0 0 0 0 1 1 1 1 1 1 1 1 1 Form: III-IEO	S ∧ P 1* 0 1* 0 0 0 0 0 0	All M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > "Sx)$ ∴ $(\exists x) (Sx \land Px)$		∧ M M > "S S ∧ P 1 0* 1* 0 0* 0 0 1 1* 0 1 0 1 1 0 0 1 0 0 1 0 0 1 0 0 1 0 1 1 0
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > \text{`Mx})$ $(\exists x) (Sx \land Px)$ Some M is P. Some M is P.	∃ ∃ ∃ ∃ ∃	S > "M S ∧ P 0*	All S is not M. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt `Mx)$ $\therefore (\exists x) (Sx \land Px)$ Some P is M.	∃	S > "M S ∧ P 0*	All M is not S. $\therefore \text{ Some S is P.}$ $(\exists x) (Mx \land Px)$ $(\forall x) (Mx > ^{x}x)$ $\therefore (\exists x) (Sx \land Px)$ \uparrow 8 Some M is P.	∃	S ∧ P 1* 0 1* 0 0 0 0 0 0 0 0 0 0 0 0	All M is not S. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > "Sx)$ $\therefore (\exists x) (Sx \land Px)$ Some P is M.		∧ M M > "S S ∧ P 1 0* 1* 0 0* 0 0 1 1* 0 1 0 1 1 0 0 1 0 0 1 0 0 1 0 1 1 0
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > \text{`Mx})$ $(\exists x) (Sx \land Px)$ Some M is P. All S is not M.	∃ ∃ ∃ ∃ ∃	S > "M S ∧ P 0* 1* 0* 0 1 1* 1 0 1 0 1 0 1 0 1 0 1 0 1 0 2 S > "M S ∧ "P 0* 0 0* 1*	All S is not M. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt Mx)$ $\therefore (\exists x) (Sx \land Px)$ Some P is M. All S is not M.		S > "M S ∧ P 0*	All M is not S. ∴ Some S is P. (∃x) (Mx \land Px) (∀x) (Mx \gt "Sx) ∴ (∃x) (Sx \land Px) Some M is P. All M is not S.	∃	S ∧ P 1* 0 1* 0 0 0 0 0 0 0 0 0 0 0 0 0	All M is not S. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > ``Sx)$ $\therefore (\exists x) (Sx \land Px)$ Some P is M. All M is not S.		∧ M M > "S S ∧ P 1 0* 1* 0 0* 0 0 1 1* 0 1 0 1 1 0 0 1 0 0 1 0 0 1 0 1 1 0 0 1 0 0 1 0 0 0 0 0 0* 0 0 1*
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx \gt ``Mx)$ $(\exists x) (Sx \land Px)$ $All S is not M. Some S is not P.$	∃ ∃ ∃ ∃ ∃	S > "M S ∧ P 0*	All S is not M. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt `Mx)$ $\therefore (\exists x) (Sx \land Px)$ Some P is M.	∃	S > "M S ∧ P 0*	All M is not S. ∴ Some S is P. (∃x) (Mx ∧ Px) (∀x) (Mx > ~Sx) ∴ (∃x) (Sx ∧ Px) Some M is P. All M is not S. ∴ Some S is not P. 3 2 3 4 4 5 6 7 8	∃	S ∧ P 1* 0 1* 0 0 0 0 0 0 0 0 0 0 0 0 0	All M is not S. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > "Sx)$ $\therefore (\exists x) (Sx \land Px)$ Some P is M.		∧ M M > "S S ∧ P 1 0* 1* 0 0* 0 0 1 1* 0 1 0 1 1 0 0 1 0 0 1 0 0 1 0 1 1 0 0 1 0 0 0 1 0 0* 0 0 0* 0 0 1* 0 0 1 0
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx \gt `Mx)$ $(\exists x) (Sx \land Px)$ $All S is not M. Some S is not P. All S is not P. 3 4$	∃ ∃ ∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1	S > "M S ∧ P 0* 1* 0* 0 1 1* 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 0* 0 0* 1* 1 0 1 1*	All S is not M. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt Mx)$ ∴ $(\exists x) (Sx \land Px)$ Some P is M. All S is not M. ∴ Some S is not P.	B B B B B B S M P P \land M 1	S > "M S ∧ P 0*	All M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px) = 5$ $(\forall x) (Mx \gt "Sx) = 6$ ∴ $(\exists x) (Sx \land Px) = 7$ 8 Some M is P. All M is not S. ∴ Some S is not P. 3 4	∃	S ∧ P 1* 0 1* 0 0 0 0 0 0 0 0 0 0 0 0 0	All M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > ``Sx)$ $∴ (\exists x) (Sx \land Px)$ Some P is M. All M is not S. ∴ Some S is not P.		∧ M M > "S S ∧ P 1 0* 1* 0 0* 0 0 1 1* 0 1 0 1 1 0 0 1 0 0 1 0 0 1 0 1 1 0 0 1 0 0 0 0 0 1* 0 0 1 0 0 1 0 0 1 0 0 1 1 0 1 1 0 1 1
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx \gt `Mx)$ $(\exists x) (Sx \land Px)$ $\exists x) (Sx \land Px)$ Some M is P. All S is not M. Some S is not P. $(\exists x) (Mx \land Px)$ $\exists x) (\exists x) (\exists x) (\exists x)$	∃ ∃ ∃ ∃ ∃ S M P M \ P 1 1 1 1 1	S > "M S \ P 0 *	All S is not M. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt `Mx)$ $\therefore (\exists x) (Sx \land Px)$ Some P is M. All S is not M. \therefore Some S is not P. $(\exists x) (Px \land Mx)$		S > "M S ∧ P 0*	All M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px) = 5$ $(\forall x) (Mx \gt "Sx) = 6$ ∴ $(\exists x) (Sx \land Px) = 7$ 8 Some M is P. All M is not S. ∴ Some S is not P. $(\exists x) (Mx \land Px) = 3$ $(\exists x) (Mx \land Px) = 5$	∃	S ∧ P 1* 0 1* 0 0 0 0 0 0 0 0 0 0 0 0 0	All M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > ``Sx)$ $∴ (\exists x) (Sx \land Px)$ Some P is M. All M is not S. ∴ Some S is not P. $(\exists x) (Px \land Mx)$		∧ M M > "S S ∧ P 1 0* 1* 0 0 0 0 1 1* 0 1 0 1 1 0 0 1 0 0 1 0 0 1 0 1 1 0 0 1 0 0 0* 0 0 1* 0 0 1 1* 0 1 1* 1 0 1* 1 0 1*
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx \gt ``Mx)$ $(\exists x) (Sx \land Px)$ $\exists x) (Sx \land Px)$ Some M is P. All S is not M. Some S is not P. $(\exists x) (Mx \land Px)$ $(\exists x) (Sx \land Px)$	∃ ∃ ∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1	S > "M S ∧ P 0*	All S is not M. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt `Mx)$ $\therefore (\exists x) (Sx \land Px)$ Some P is M. All S is not M. \therefore Some S is not P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt `Mx)$		S > "M S ∧ P 0 * 0 1 * 0 1 * 0 1 0 1 0 1 0 1 0 1 0 0	All M is not S. Some S is P. $(\exists x) (Mx \land Px) = 5$ $(\forall x) (Mx \gt "Sx) = 6$ $(\exists x) (Sx \land Px) = 7$ 8 Some M is P. All M is not S. Some S is not P. $(\exists x) (Mx \land Px) = 3$ $(\exists x) (Mx \land Px) = 5$ $(\exists x) (Mx \land Px) = 6$ $(\exists x) (Mx \gt Px) = 6$	∃	S ∧ P 1* 0 1* 0 0 0 0 0 0 0 0 0 0 0 0 0	All M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > ``Sx)$ $∴ (\exists x) (Sx \land Px)$ Some P is M. All M is not S. ∴ Some S is not P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > ``Sx)$		∧ M M > "S S ∧ P 1 0* 1* 0 0 0 0 1 1* 0 1 0 1 1 0 0 1 0 0 1 0 0 1 0 1 1 0 0 1 0 0 0* 0 0 1* 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx \gt `Mx)$ $(\exists x) (Sx \land Px)$ $\exists x) (Sx \land Px)$ Some M is P. All S is not M. Some S is not P. $(\exists x) (Mx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Mx \land Px)$ $(\exists x) (Sx \gt `Mx)$ $(\exists x) (Sx \gt `Mx)$ $(\exists x) (Sx \land `Px)$ $(\exists x) (Sx \land `Px)$	∃ ∃ ∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1	S > "M	All S is not M. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt `Mx)$ $\therefore (\exists x) (Sx \land Px)$ Some P is M. All S is not M. \therefore Some S is not P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt `Mx)$	B B B B B B S M P P \land M M P N M M M M M M M M M	S > "M S ∧ P O* O* O* O* O* O* O*	All M is not S. $ \begin{array}{c} $	∃	S ∧ P 1* 0 1* 0 0 0 0 0 0 0 0 0 0 0 0 0	All M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > ``Sx)$ $∴ (\exists x) (Sx \land Px)$ Some P is M. All M is not S. ∴ Some S is not P. $(\exists x) (Px \land Mx)$		∧ M M > "S S ∧ P 1 0* 1* 0 0 0 0 1 1* 0 1 0 1 1 0 0 1 0 0 1 0 0 1 0 1 1 0 0 1 0 0 0* 0 0 1* 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0
Some M is P. All S is not M. Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx \gt `Mx)$ $(\exists x) (Sx \land Px)$ $\exists x) (Sx \land Px)$ Some M is P. All S is not M. Some S is not P. $(\exists x) (Mx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Mx \land Px)$ $(\forall x) (Sx \gt `Mx)$ $(\exists x) (Sx \land `Px)$ $\exists x$	∃ ∃ ∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1	S > "M S ∧ P 0*	All S is not M. \therefore Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt `Mx)$ $\therefore (\exists x) (Sx \land Px)$ Some P is M. All S is not M. \therefore Some S is not P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt `Mx)$		S > "M S ∧ P 0 * 0 1 * 0 1 * 0 1 0 1 0 1 0 1 0 1 0 0	All M is not S. $ \begin{array}{c} $	∃	S ∧ P 1* 0 1* 0 0 0 0 0 0 0 0 0 0 0 0 0	All M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > ``Sx)$ $∴ (\exists x) (Sx \land Px)$ Some P is M. All M is not S. ∴ Some S is not P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > ``Sx)$		∧ M M > "S S ∧ P 1 0* 1* 0 0 0 0 1 1* 0 1 0 1 1 0 0 1 0 0 1 0 0 1 0 1 1 0 0 1 0 0 0* 0 0 1* 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0 0 1 0

	Form: I-IIA		F	Form: II-IIA			Form: III-IIA			Form: IV-IIA	
		∃ ∀	E	3 3 3 3	3 A		3 3 3 3	3 A			3 A
	S M P M A P	$S \wedge M S > P$	S	S M P P M	$S \wedge M S > P$		S M P $M \wedge P$	$M \wedge S S > P$		S M P P AM M	∧ S S > P
Some M is P.		1 1	Some P is M. 1 1	l 1 1 1	1 1		1 1 1 1 1	1 1	Some P is M.		1 1
Some S is M.		1 0		1 0 0	1 0	Some M is S.	2 1 1 0 0	1 0	Some M is S.		1 0
∴ All S is P.	3 1 0 1 0	0 1	∴ All S is P. 3 1	L 0 1 0	0 1	∴ All S is P.	3 1 0 1 0	0 1	∴ All S is P.	3 1 0 1 0	0 1
	4 1 0 0 0	0 0		1 0 0 0	0 0		4 1 0 0 0	0 0			0 0
$(\exists x) (Mx \land Px)$		0 1		1 1 1	0 1	$(\exists x) (Mx \land Px)$	5 0 1 1 1	0 1	$(\exists x) (Px \land Mx)$		0 1
$(\exists x) (Sx \land Mx)$		0 1		0 1 0 0	0 1	$(\exists x) (Mx \land Sx)$	6 0 1 0 0	0 1	$(\exists x) (Mx \land Sx)$	6 0 1 0 0	0 1
$\therefore (\forall x) (Sx > Px)$		0 1		0 1 0	0 1	$\therefore (\forall x) (Sx > Px)$	7 0 0 1 0	0 1	$\therefore \overline{(\forall x)(Sx > Px)}$		0 1
	8 0 0 0 0	0 1	8 0		0 1		8 0 0 0 0	0 1			0 1
	1 1 1 1	1 0	1	1 1 1 1	1 0		1 1 1 1	1 0		1 1 1 1	1 0
	Form: I-IIE		F	Form: II-IIE			Form: III-IIE			Form: IV-IIE	
		∃ ∀	<u> </u>	3 3 3 3	∃ ∀		3 3 3 3	∃ ∀			∃ ∀
	S M P M \wedge P	$S \wedge M \mid S > P$		$S M P P \land M$			S M P $M \wedge P$			$f S \ M \ P \ P \wedge M \ M$	
	1 1 1 1 1	1 0	Some P is M. 1 1		1 0		1 1 1 1	1 0			1 0
Some S is M.		1 1	Some S is M. 2 1		1 1	Some M is S.	2 1 1 0 0	1 1	Some M is S.		1 1
∴ All S is not P.		0 0		0 1 0	0 0	∴ All S is not P.	3 1 0 1 0	0 0	∴ All S is not P.		0 0
(3) (24) 5)	4 1 0 0 0	0 1		1 0 0 0	0 1	(7.) (2	4 1 0 0 0	0 1	(3.)(5)		0 1
$(\exists x) (Mx \land Px)$		0 1	<u> </u>	0 1 1 1	0 1	$(\exists x) (Mx \land Px)$	5 0 1 1 1	0 1	$(\exists x) (Px \land Mx)$ $(\exists x) (Mx \land Sx)$		0 1
$\frac{(\exists x) (Sx \land Mx)}{(\forall x) (Sx > {}^{"}Px)}$		0 1 0 1	$\begin{array}{c c} (\exists x) (Sx \land Mx) & 6 & 0 \\ (\forall x) (Sx > {}^{n}Px) & 7 & 0 \end{array}$	0 1 0 0	0 1 0 1	$\frac{(\exists x) (Mx \land Sx)}{(\forall x) (Sx > ^{r}Px)}$	6 0 1 0 0 7 0 0 1 0	0 1 0 1	$\therefore (\forall x) (\exists x) (\exists x \land \exists x)$ $\therefore (\forall x) (\exists x \land \exists x)$		0 1 1
(VX)(SX > PX)	8 0 0 0 0	0 1		0 0 0 0	0 1	(VX)(SX > PX)	8 0 0 0 0	0 1	(VX)(SX > PX)		0 1
	1 1 1 1	1 0			1 0		1 1 1 1	1 0			1 0
	1 1 1 1	1 0	-		1 0		1 1 1 1	1 0		1 1 1 1	1 0
	Form: I-III			Form: II-III			Form: III-III			Form: IV-III	
	3 3 3 3	3 3 SAM SAR	E	3 3 3 3	3 3 S A M S A B		3 3 3 3	3 3 MAG GAD		B B B B	<u> </u>
Some M is D	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$S \wedge M S \wedge P$	<u>∃</u> 	3 3 3 3 3 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8	$S \wedge M$ $S \wedge P$	Somo M is D	∃ ∃ ∃ S M P M ∧ P	$M \wedge S S \wedge P$	Somo P is M	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	\wedge S S \wedge P
Some M is P.	∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1	$S \wedge M$ $S \wedge P$ 1 1 *	Some P is M. 1 1	3 3 3 3 3 5 5 M P P \(M \) 1 1 1 1	$S \wedge M$ $S \wedge P$ 1 1 *	Some M is P.	∃ ∃ ∃ ∃ ∃	M ∧ S S ∧ P 1 1*	Some P is M.	∃ ∃ ∃ ∃	∧ S S ∧ P 1 1*
Some S is M.	∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1 2 1 1 0 0	$ \begin{array}{c cc} S \wedge M & S \wedge P \\ \hline 1 & 1^* \\ 1 & 0 \end{array} $	Some P is M. 1 1 1 Some S is M. 2 1	3 3 3 3 3 5 5 M P P ∧ M 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$ \begin{array}{c cc} S \land M & S \land P \\ \hline 1 & 1^* \\ 1 & 0 \end{array} $	Some M is S.	∃ ∃ ∃ ∃ ∃	$ \begin{array}{c cc} M \land S & S \land P \\ \hline 1 & 1^* \\ \hline 1 & 0 \end{array} $	Some M is S.	∃ ∃ ∃ ∃ S M P P ∧ M M 1 1 1 1 1 2 1 1 0 0	$ \begin{array}{c cc} $
	∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1 2 1 1 0 0 3 1 0 1 0	$\begin{array}{c cccc} S \land M & S \land P \\ \hline 1 & 1^* \\ 1 & 0 \\ \hline 0 & 1^* \\ \end{array}$	Some P is M. 1 1 1 Some S is M. 2 1 1 3 1 3 1	B B B B B B B B B B B B B B B B B B B	$ \begin{array}{c cccc} S \land M & S \land P \\ \hline 1 & 1^* \\ 1 & 0 \\ 0 & 1^* \end{array} $		∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1 2 1 1 0 0 3 1 0 1 0	M∧S S∧P 1 1* 1 0 0 1*		∃ ∃ ∃ ∃ S M P P ∧ M M 1 1 1 1 1 2 1 1 0 0 3 1 0 1 0	\(\begin{array}{cccccccccccccccccccccccccccccccccccc
Some S is M.	∃ ∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1 2 1 1 0 0 3 1 0 1 0 4 1 0 0 0	$ \begin{array}{c cc} S \wedge M & S \wedge P \\ \hline 1 & 1^* \\ 1 & 0 \end{array} $	Some P is M. 1 1 1 2 1 1 2 1 1 3 1 1 1 1 2 1 1 1 1 1	3 3 3 3 3 5 5 M P P ∧ M 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$ \begin{array}{c cc} S \land M & S \land P \\ \hline 1 & 1^* \\ 1 & 0 \end{array} $	Some M is S. ∴ Some S is P.	∃ ∃ ∃ ∃ ∃	$ \begin{array}{c cc} M \land S & S \land P \\ \hline 1 & 1^* \\ \hline 1 & 0 \end{array} $	Some M is S. ∴ Some S is P.	∃ ∃ ∃ ∃ ∃	$ \begin{array}{c cc} $
Some S is M. ∴ Some S is P.	∃ ∃ ∃ ∃ S M P M ∧ P 1 1 1 1 1 2 1 1 0 0 3 1 0 1 0 4 1 0 0 0 5 0 1 1 1	$\begin{array}{c cccc} S \wedge M & S \wedge P \\ \hline 1 & 1^* \\ 1 & 0 \\ 0 & 1^* \\ 0 & 0 \\ \end{array}$	Some P is M. Some S is M. ∴ Some S is P. 3 S S 3 1 4 1 4 1	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	S \ M S \ P 1 1* 1 0 0 1* 0 0	Some M is S.	∃ ∃ ∃ ∃ S M P M∧P 1 1 1 1 1 1 1 1 2 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	M ∧ S S ∧ P 1 1* 1 0 0 1* 0 0	Some M is S. ∴ Some S is P.	∃ ∃ ∃ ∃ S M P P ∧ M M 1 1 1 1 1 2 1 1 0 0 3 1 0 1 0 4 1 0 0 0	\(\cdot S \) S \(\cdot P \) 1
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Some S is M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Sx \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ Some M is P. Some S is M. ∴ Some S is not P. $(\exists x) (Mx \land Px)$ $(\exists x) (Mx \land Px)$ $(\exists x) (Sx \land Mx)$	∃ ∃ ∃ ∃ ∃ S M P M ∧ P 1	S ∧ M S ∧ P 1 1* 0 0 0 0 0 0 0 0 0 0 0 0 1 0 S ∧ M S ∧ "P 1 0 1 1* 0 0 0 1* 0 0 0 0 0 0 0 0	Some P is M. Some S is M. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Mx)$		S ∧ M S ∧ P 1 1* 1 0 0 1* 0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 1 0 S ∧ M S ∧ "P 1 0 1 1* 0 0 0 1* 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Some M is S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Mx \land Sx)$ ∴ $(\exists x) (Sx \land Px)$ $Some M is P. Some M is S. ∴ Some S is not P. (\exists x) (Mx \land Px) (\exists x) (Mx \land Px) (\exists x) (Mx \land Px)$	∃ ∃ ∃ ∃ ∃ S M P M ∧ P M ∧ P	M ∧ S S ∧ P 1 1* 1 0 0 0 0 0 0 0 0 0 0 0 0 0 1 0 1 1* 0 0 1* 0 0 0 0 0 0 0	Some M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Mx \land Sx)$ $∴ (\exists x) (Sx \land Px)$ $Some P is M.$ $Some M is S.$ ∴ Some S is not P. $(\exists x) (Px \land Mx)$ $(\exists x) (Px \land Mx)$ $(\exists x) (Mx \land Sx)$		∧ S S ∧ P 1 1* 1 0 0 0* 0 0 0 0 0 0 0 0 0 0 1 0 1 0 1 1* 0 0 0 0 0 0 0 0

Form: I-IOA	Form: II-IOA	Form: III-IOA	Form: IV-IOA
A B B B B A	∀ E E E E		A B B B B A
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is P. 1 1 1 1 0 1	Some P is M. 1 1 1 1 0 1	Some M is P. 1 1 1 1 1 0 1	Some P is M. 1 1 1 1 0 1
Some S is not M. 2 1 1 0 0 0 0	Some S is not M. 2 1 1 0 0 0 0	Some M is not S. 2 1 1 0 0 0 0	Some M is not S. 2 1 1 0 0 0 0
\therefore All S is P. $egin{array}{c ccccccccccccccccccccccccccccccccccc$	\therefore All S is P. $egin{array}{c ccccccccccccccccccccccccccccccccccc$	∴ All S is P. 3 1 0 1 0 0 1 4 1 0 0 0 0 0	\therefore All S is P. $\begin{vmatrix} 3 & 1 & 0 & 1 & 0 & 0 & 1 \\ 4 & 1 & 0 & 0 & 0 & 0 & 0 \end{vmatrix}$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$(\exists x) (Mx \land Px)$ 5 0 1 1 1 1 1	$(\exists x) (Px \land Mx) \begin{vmatrix} 4 & 1 & 0 & 0 & 0 & 0 & 0 \\ 5 & 0 & 1 & 1 & 1 & 1 & 1 \end{vmatrix}$
$(\exists x) (Sx \land \tilde{m}x) = 0 1 1 0 1 1 0 1 0 0 $	$(\exists x)(fx \land fx) = 0 \Rightarrow 1 \Rightarrow 1 \Rightarrow 0 \Rightarrow 1 \Rightarrow 0 \Rightarrow 1 \Rightarrow 0 \Rightarrow 1 \Rightarrow 0 \Rightarrow 0$	$(\exists x) (\exists x$	$(\exists x)(\forall x \land \forall x)$ $\begin{vmatrix} 3 & 0 & 1 & 1 & 1 & 1 & 1 \\ (\exists x)(\forall x \land \forall x) & 6 & 0 & 1 & 0 & 0 & 1 & 1 \end{vmatrix}$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$(\forall x) (Sx > Px)$ 7 0 0 1 0 0 1
8 0 0 0 0 1	8 0 0 0 0 1	8 0 0 0 0 1	8 0 0 0 0 1
1 1 1 1 0	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
Form: I-IOE	Form: II-IOE	Form: III-IOE	Form: IV-IOE
\forall	\forall		A B B B B A
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is P. 1 1 1 1 0 0	Some P is M. 1 1 1 1 0 0	Some M is P. 1 1 1 1 1 0 0	Some P is M. 1 1 1 1 0 0
Some S is not M. 2 1 1 0 0 0 1 ∴ All S is not P. 3 1 0 1 0 1	Some S is not M. 2 1 1 0 0 1 ∴ All S is not P. 3 1 0 1 0	Some M is not S. 2 1 1 0 0 0 1 1 ∴ All S is not P. 3 1 0 1 0 0 0	Some M is not S. 2 1 1 0 0 0 1 1 ∴ All S is not P. 3 1 0 1 0 0 0
\therefore All S is not P. 3 1 0 1 0 1 0 1 0 1 1	\therefore All S is not P. $egin{array}{ c c c c c c c c c c c c c c c c c c c$	∴ All S is not P. 3 1 0 1 0 0 0 0 1 1 1 0 0 1 1 1 1 1 1 1	∴ All S is not P. 3 1 0 1 0 0 0 0 4 1 0 0 0 1
$(\exists x) (Mx \land Px) $	$(\exists x) (Px \land Mx)$ $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$(\exists x) (Mx \land Px)$ 5 0 1 1 1 1 1	$(\exists x) (Px \land Mx)$ 5 0 1 1 1 1 1
$(\exists x) (\exists x$	$(\exists x)(Sx \land ``Mx) = 0 0 1 0 0 0 1$	$(\exists x) (Mx \land ``Sx) $	$(\exists x) (Mx \land ``Sx) = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 = 0 = $
$\therefore (\forall x) (Sx > Px) $	$\therefore \overline{(\forall x)(Sx > ^nPx)} 7 0 0 1 0 0 1$	$\therefore \overline{(\forall x)(Sx > \text{"Px})} 7 0 0 1 0 0 1$	$(\forall x) (Sx > Px) $
8 0 0 0 0 0 1	8 0 0 0 0 1	8 0 0 0 0 1	8 0 0 0 0 1
1 1 1 1 0	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
Farmer I IOI	Form, II IOI	Form, III IOI	Form, IV IOI
Form: I-IOI	Form: II-IOI	Form: III-IOI	Form: IV-IOI
3 3 3 3 3 3		3 3 3 3 3	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is P. Some S is not M. ∴ Some S is P. $3 3 3 3 3 3 3 3 3 3 $		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is P. Some S is not M. ∴ Some S is P.	Some P is M. Some S is not M. Some S is P.	Some M is P. Some S is P. $ \begin{vmatrix} 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 &$	Some P is M. Some S is P.
Some M is P. Some S is not M. $2 \ 1 \ 1 \ 0 \ 0 \ 0 \ 0$ $3 \ 1 \ 0 \ 1 \ 0 \ 1 \ 0$ $(\exists x) (Mx \land Px)$ $3 \ 0 \ 1 \ 1 \ 1 \ 0 \ 0$	Some P is M. Some S is not M. Some S is P. $(∃x)(Px ∧ Mx)$	Some M is P. Some S is P.	Some P is M. Some M is not S. ∴ Some S is P. $ \begin{vmatrix} 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 &$
Some M is P. Some S is not M. Some S is P.	Some P is M. Some S is not M. ∴ Some S is P. $(\exists x) (px \land mx)$ $(\exists x) (sx \land ^m mx)$ $\exists \exists \exists$	Some M is P. Some S is P.	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Mx \land ``Sx)$ Some P is M. $(\exists x) (Mx \land ``Sx)$ $(\exists x) (Mx \land (``Sx))$
Some M is P. Some S is not M. Some S is P.	Some P is M. Some S is not M. ∴ Some S is P. $(\exists x) (Sx \land ``Mx)$ ∴ $(\exists x) (Sx \land ``M$	Some M is P. Some S is P.	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$
Some M is P. Some S is not M. ∴ Some S is P.	Some P is M. Some S is not M. ∴ Some S is P. $(∃x) (Px ∧ Mx) (∃x) (Sx ∧ Px)$ $(∃x) (Sx ∧ Px)$	Some M is P. Some S is P.	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land $
Some M is P. Some S is not M. Some S is P.	Some P is M. Some S is not M. ∴ Some S is P. $(\exists x) (Sx \land ``Mx)$ ∴ $(\exists x) (Sx \land ``M$	Some M is P. Some S is P.	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$
Some M is P. Some S is not M. ∴ Some S is P.	Some P is M. Some S is not M. ∴ Some S is P. $(∃x) (Px ∧ Mx) (∃x) (Sx ∧ Px)$ $(∃x) (Sx ∧ Px)$	Some M is P. Some S is P.	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land $
Some M is P. Some S is not M. $2 \ 1 \ 1 \ 1 \ 1 \ 0 \ 0 \ 0$ $3 \ 1 \ 0 \ 1 \ 0$ $3 \ 1 \ 0 \ 1 \ 0$ $3 \ 1 \ 0 \ 1 \ 0$ $3 \ 1 \ 0 \ 1 \ 0$ $3 \ 1 \ 0 \ 1 \ 0$ $3 \ 1 \ 0 \ 1 \ 0$ $3 \ 1 \ 0 \ 1 \ 0$ $3 \ 1 \ 0 \ 1 \ 0$ $4 \ 1 \ 0 \ 0 \ 0 \ 1 \ 0$ $6 \ 0 \ 1 \ 1 \ 1 \ 0$ $6 \ 0 \ 1 \ 0 \ 0$ $7 \ 0 \ 0 \ 1 \ 0$ $8 \ 0 \ 0 \ 0 \ 0$ $9 \ 0 \ 0$ $1 \ 1 \ 1 \ 1$ $1 \ 0 \ 0$	Some P is M. Some S is not M. ∴ Some S is P. $(∃x) (Px ∧ Mx)$ $∴ (∃x) (Sx ∧ Px)$ $(∃x) 1 1 1 1 1 1 0 0 1*$ $2 1 1 0 0 0 0 0 0 0$ $3 1 0 1 0 1 1*$ $4 1 0 0 0 0 1 1 0$ $5 0 1 1 1 1 0 0 0$ $6 0 1 0 0 0 0$ $7 0 0 1 0 0 0$ $8 0 0 0 0 0 0$ $1 1 1 1 1 1 0$	Some M is P. Some S is P.	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Tx \land Px$
Some M is P. Some S is not M. ∴ Some S is P. $ (\exists x) (\exists x \land \neg x \land \neg x) (\exists x) (\exists x \land \neg x \land \neg x) (\exists x) (\exists x \land \neg x \land \neg x) (\exists x) (\exists x \land \neg x \land \neg x) (\exists x) (\exists x \land \neg x \land \neg x) (\exists x) (\exists x \land \neg x \land \neg x \land \neg x) (\exists x \land \neg x \land \neg x \land \neg x \land \neg x) (\exists x \land \neg x \land x \land$	Some P is M. Some S is not M. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx ∧ Px) Form: II-IOO	Some M is P. Some M is not S. ∴ Some S is P.	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Form: IV-IOO
Some M is P. Some S is not M. ∴ Some S is P. $ (\exists x) (\exists x)$	Some P is M. Some S is not M. Some S is P.	Some M is P. Some M is not S. ∴ Some S is P. (∃x) (Mx ∧ Px) ∴ (∃x) (Sx ∧ Px) Form: III-IOO Some M is P. (∃x) (Mx ∧ Tx)	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ Form: IV-IOO
Some M is P. Some S is not M. ∴ Some S is P. $ (\exists x) (\exists x)$	Some P is M. Some S is not M. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx ∧ Px) Form: II-IOO Some P is M. Some P is M. Some S is not M. 2 1 1 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0	Some M is P. Some M is not S. ∴ Some S is P. (∃x) (Mx ∧ Px) ∴ (∃x) (Sx ∧ Px) Form: III-IOO Some M is P. (∃x) (Mx ∧ Tx) ∴ (∃x) (Sx ∧ Px) (∃x) (Mx ∧ Tx)	Some P is M. Some M is not S. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx ∧ Px) Form: IV-IOO Some P is M. Some P is M. Some P is M. Some P is M. Some M is not S. 2 1 1 1 0 0 0 0 1* 4 1 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 0 0 0 1* 0 0 0 0 1 1 0 0 0 0 0 1 1 1 1
Some M is P. Some S is not M. ∴ Some S is P. (∃x) (Mx ∧ Px) ∴ (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Px) Some M is P. Some M is P. ∃ ∃ ∃ ∃ ∃ ∃ ∃ S M P M ∧ P S ∧ M S ∧ P 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 0 0 0 3 1 0 1 0 1 0 1 4 1 0 0 0 0 1 5 0 1 1 1 1 0 0 6 0 1 0 0 0 0 7 0 0 1 0 0 0 8 0 0 0 0 0 0 1 1 1 1 1 1 1 O Form: I-IOO Some S is not M. ∴ Some S is not P. 1 1 1 1 1 1 1 0 0 0 S M P M ∧ P S ∧ M S ∧ P Some S is not P. 3 1 0 1 0 1 0 1 0 1 1 1 1 1 1 1 0 0 0 1 1 1 1	Some P is M. Some S is not M. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx ∧ Px) Some P is M. Some P is M. Some S is not M. ∴ (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Mx) ↑ (∃x) (Sx	Some M is P. Some M is not S. ∴ Some S is P. (∃x) (Mx ∧ Px) ∴ (∃x) (Sx ∧ Px) Form: III-IOO Some M is P. Some M is P. (∃x) (Mx ∧ Tx) ∴ (∃x) (Sx ∧ Px) (∃x) (Mx ∧ Tx) (∃	Some P is M. Some M is not S. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx ∧ Px) Form: IV-IOO Some P is M. Some M is not S. ∴ Some S is not P. 3
Some M is P. Some S is not M. ∴ Some S is P. $ (\exists x) (\exists x)$	Some P is M. Some S is not M. Some S is P.	Some M is P. Some M is not S. ∴ Some S is P. (∃x) (Mx ∧ Px) ∴ (∃x) (Sx ∧ Px) Form: III-IOO Some M is not S. ∴ Some M is P. (∃x) (Mx ∧ Tx) ∴ (∃x) (Sx ∧ Px) (∃x) (Mx ∧ Tx) ∴ (∃x) (Sx ∧ Px) Some M is P. Some M is P. Some M is P. Some M is not S. ∴ Some S is not P. (∃x) (xx) (xx) (xx) (xx) (x	Some P is M. Some M is not S. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx ∧ Px) Form: IV-IOO Some P is M. Some P is M. Some P is M. Some P is M. Some M is not S. ∴ Some S is not P. 3
Some M is P. Some S is not M. ∴ Some S is P.	Some P is M. Some S is not M. Some S is P.	Some M is P. Some M is not S. ∴ Some S is P. (∃x) (Mx ∧ Px) ∴ (∃x) (Sx ∧ Px) Form: III-IOO Some M is not S. ∴ Some M is P. (∃x) (Mx ∧ Px) (∃x) (Mx ∧ Sx) (∃x) (Mx ∧ Px) (∃x) (Mx ∧	Some P is M. Some M is not S. ∴ Some S is P. $(∃x)(Px \land Mx)$ $(∃x)(Mx \land ``Sx)$ $∴ (∃x)(Sx \land Px)$ $(∃x)(Sx \land Px)$ $(∃x)(Sx$
Some M is P. Some S is not M. Some S is P. Some S is Not M. Some S is not M. Some S is not M. Some S is not P.	Some P is M. Some S is not M. Some S is P. Some N is P. Some S is P. Some P is M. Some S is not M. Some S is not P. Some S is no	Some M is P. Some S is P. 3	Some P is M. Some M is not S. ∴ Some S is P. \exists 1 1 1 1 1 0 0 1* \exists 3 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Some M is P. Some S is not M. ∴ Some S is P.	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P. Some S is P. A	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Mx \land ``Sx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land (Sx $
Some M is P. Some S is not M. ∴ Some S is P.	Some P is M. Some S is not M. Some S is P. Some N is P. Some S is P. Some P is M. Some S is not M. Some S is not P. Some S is no	Some M is P. Some S is P. 3	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land $

Form: I-OAA Some M is not P. All S is M. All S is P. $(\exists x) (Mx \land ``Px)$ $(\forall x) (Sx > Px)$ To a continuous in the continuous interpretation of the continuous i	Form: II-OAA Some P is not M. All S is M. All S is P. $(\exists x) (Px \land ``Mx)$ $(\forall x) (Sx > Px)$ Form: II-OAA	Form: III-OAA $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: IV-OAA S M P P \wedge \cdot M M \wedge S S \times P
Form: I-OAE Some M is not P. All S is M. All S is not P. $(\exists x) (Mx \land ``Px)$ $(\forall x) (Sx > ``Px)$ Form: I-OAE	Form: II-OAE Some P is not M. All S is M. All S is not P. $(\exists x) (Px \land ``Mx) (\forall x) (Sx \gt ``Px)$ $(\forall x) (Sx \gt ``Px)$ Form: II-OAE $3 \exists \exists \exists \forall \forall \forall \exists \exists \exists \exists$	Form: III-OAE S M P M \lambda "P M \lambda S S \rangle "P	Form: IV-OAE Some P is not M. All M is S. All S is not P. $(\exists x) (Px \land ``Mx) (\forall x) (Sx \gt ``Px)$ $(\forall x) (Sx \gt ``Px)$ Form: IV-OAE $3 \exists \exists \exists \exists \exists \forall \forall \forall \forall \forall \forall \exists \exists \exists \exists \exists \exists \exists \exists $
Form: I-OAI	Form: II-OAI	Form: III-OAI $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: IV-OAI $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Form: I-OAO Some M is not P. All S is M. Some S is not P. $(\exists x) (Mx \land "Px) (\forall x) (Sx > Mx) (\exists x) (Sx \land "Px)$ $(\exists x) (Sx \land "Px) (\exists x) (Sx \land "Px)$ $(\exists x) (Sx \land "Px) (\exists x) (Sx \land "Px)$ $(\exists x) (Sx \land "Px) (\exists x) (Sx \land "Px) (Sx \land "Px$	Form: II-OAO	Form: III-OAO (15, 19, 24) $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: IV-OAO Some P is not M. All M is S. Some S is not P. $(\exists x) (Px \land ``Mx) \\ (\forall x) (Mx > Sx) \\ (\exists x) (Sx \land ``Px)$ Form: IV-OAO $\exists \exists \exists$

	Form: I-OEA	Form: II-OEA	Form: III-OEA	Form: IV-OEA
Г			A E E E E A A	
	S M P M ^ "P S > "M S >		S M P M \(^n P \) M > "S S > P	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is not P.	1 1 1 1 0 0* 1		1 Some M is not P. 1 1 1 1 0 0* 1	Some P is not M. 1 1 1 1 0 0* 1
	2 1 1 0 1 0* 0		0 All M is not S. 2 1 1 0 1 0* 0	All M is not S. 2 1 1 0 0 0* 0
	3 1 0 1 0 1 1		1 : All S is P. 3 1 0 1 0 1 1	∴ All S is P. 3 1 0 1 1 1 1
<u> </u>	4 1 0 0 0 1 0		0 4 1 0 0 0 1 0	4 1 0 0 0 1 0
(∃x)(Mx ∧ "Px)	5 0 1 1 0 1 1	$(\exists x) (Px \land Mx) $ 5 0 1 1 0 1	1 $(\exists x) (Mx \land "Px)$ 5 0 1 1 0 1 1	$(\exists x) (Px \land ``Mx) $ 5 0 1 1 0 1 1
$(\forall x) (Sx > Mx)$	6 0 1 0 1 1 1	$(\forall x) (Sx > Mx)$ 6 0 1 0 0 1	1 $(\forall x) (Mx > "Sx)$ 6 0 1 0 1 1 1	$(\forall x) (Mx > \text{``Sx}) $ 6 0 1 0 0 1 1
$(\forall x) (Sx > Px)$	7 0 0 1 0 1 1	$\therefore (\forall x) (Sx > Px) $	1 $(\forall x) (Sx > Px)$ 7 0 0 1 0 1 1	$\therefore (\forall x) (Sx > Px) $
	8 0 0 0 0 1 1	8 0 0 0 1	1 8 0 0 0 0 1 1	8 0 0 0 0 1 1
_	1 1 1 1 1 0	1 1 1 1	1 1 1 1 0	1 1 1 1 0
	Form: I-OEE	Form: II-OEE	Form: III-OEE	Form: IV-OEE
	A E E E E		A	
	S M P M ^ "P S > "M S >	$\stackrel{\text{"P}}{}$ S M P P $\stackrel{\text{"M}}{}$ S $\stackrel{\text{"M}}{}$	S M P M \(^{\mathbb{P}}\) M > "S S > "P	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is not P.	1 1 1 1 0 0*	Some P is not M. 1 1 1 1 0 0*	0 Some M is not P. 1 1 1 1 0 0* 0	Some P is not M. 1 1 1 1 0 0* 0
All S is not M.	2 1 1 0 1 0*	All S is not M. 2 1 1 0 0 0*	1 All M is not S. 2 1 1 0 1 0* 1	All M is not S. 2 1 1 0 0 0* 1
∴ All S is not P.	3 1 0 1 0 1 0	∴ All S is not P. 3 1 0 1 1 1	0 : All S is not P. 3 1 0 1 0 1 0	∴ All S is not P. 3 1 0 1 1 1 0
	4 1 0 0 0 1	4 1 0 0 0 1	1 4 1 0 0 0 1 1	4 1 0 0 0 1 1
	5 0 1 1 0 1		1 $(\exists x) (Mx \land Px)$ 5 0 1 1 0 1 1	$(\exists x) (Px \land ``Mx) $ 5 0 1 1 0 1 1
	6 0 1 0 1 1 1		1 $(\forall x) (Mx > \tilde{S}x)$ 6 0 1 0 1 1 1	$ \frac{(\forall x) (Mx > "Sx)}{6} 6 0 1 0 1 1 $
	7 0 0 1 0 1		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\therefore (\forall x) (Sx > \text{`Px}) \boxed{7} \boxed{0} \boxed{0} \boxed{1} \boxed{1} \boxed{1}$
	8 0 0 0 0 1		8 0 0 0 1 1	
	1 1 1 1 1	1 1 1 1	0 1 1 1 1 0	1 1 1 1 0
	Form: I-OEI	Form: II-OEI	Form: III-OEI	Form: IV-OEI
Γ	Form: I-OEI	Form: II-OEI	Form: III-OEI	Form: IV-OEI
Some M is not P.	3 3 3 A 3	P		
	∃ ∃ ∃ ∀ ∃ S M P M ∧ "P S > "M S /	P Some P is not M.		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
All S is not M.	3 3 3 5 7 8 8 8 8 8 8 8 8 8	P Some P is not M. All S is not M. 2 1 1 0 0 0* S M P P P ∧ M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P N M S > M P P P ∧ M P P N P ∧ M S > M P P P ∧ M P P N P ∧ M P P N P ∧ M P P P ∧ M P P N P N P N P N P N P N P N P N P N	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	
All S is not M. ∴ Some S is P.	3 3 3 5 7 8 8 8 8 8 8 8 8 8	P Some P is not M. All S is not M. ∴ Some S is P. 3 3 3 3 ∀ S M P P ∧ "M S > "M 1 1 1 1 0 0 * 2 1 1 0 0 0 * 3 1 0 1 1 1 1 3 1 0 1 1 1 4 1 1 1 1 5 7 7 7 7 7 7 7 8 7 7 7 9 7 7 7 1 1 1 1 1 1 1 1 1	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	
All S is not M. ∴ Some S is P.	B B B B V B S M P M \(\lambda \) P S \(\lambda \) M S \(\lambda \) 1 1 1 1 0 0 \(\lambda \) 0 1 2 1 1 0 1 0 \(\lambda \) 0 1 1 3 1 0 1 0 1 1	P Some P is not M. All S is not M. ∴ Some S is P. $(\exists x) (Px \land ``Mx)$ $\exists \exists \exists \exists \exists \exists \forall \forall \exists \exists$		Some P is not M. All M is not S. ∴ Some S is P.
All S is not M. ∴ Some S is P. $(\exists x) (Mx \land \text{`Px})$ $(\forall x) (Sx > \text{`Mx})$	3 3 3 5 7 8 7	P Some P is not M. All S is not M. ∴ Some S is P. $(∃x)(Px \land ``Mx)(∀x)(Sx \gt ``Mx)$ $(∀x)(Sx \gt ``Mx)$ $\begin{vmatrix} ∃ & ∃ & ∃ & ∃ & ∀ \\ S & M & P & P \land ``M & S \gt ``M \\ 2 & 1 & 1 & 0 & 0 & 0 * \\ 3 & 1 & 0 & 1 & 1 & 1 & 1 \\ 4 & 1 & 0 & 0 & 0 & 1 & 1 & 1 & 1 \\ 5 & 0 & 1 & 1 & 0 & 1 & 1 & 1 & 1 & 1 & 1$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Some P is not M. All M is not S. Some S is P. $(\exists x) (Px \land ``Mx) (\forall x) (Mx > ``Sx)$ $\exists \exists \exists \exists \exists \exists \forall \forall \exists \exists \exists \land \exists \land \exists \land \exists \land \exists \land $
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Form: I-OIA	Form: II-OIA	Form: III-OIA	Form: IV-OIA
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S M P M ^ "P S ^ M S	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	S M P $M \land "P$ $M \land S$ $S > P$	S M P $P \land "M$ $M \land S$ $S > P$
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Some S is M. 2 1 1 0 1 1	Some S is M. 2 1 1 0 0 1 0	Some M is S. 2 1 1 0 1 1 0	Some M is S. 2 1 1 0 0 1 0
∴ All S is P. 3 1 0 1 0 0	. ∴ All S is P. 3 1 0 1 1 0 1	∴ All S is P. 3 1 0 1 0 0 1	∴ All S is P. 3 1 0 1 1 0 1
4 1 0 0 0 0	4 1 0 0 0 0	4 1 0 0 0 0 0	4 1 0 0 0 0 0
$(\exists x) (Mx \land "Px) $ 5 0 1 1 0 0	$(\exists x) (Px \land ``Mx) $	$(\exists x) (Mx \land `Px) $	$(\exists x) (Px \land ``Mx)$ 5 0 1 1 0 0 1
$(\exists x) (Sx \land Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 0$	$ (\exists x) (Sx \land Mx) $	$(\exists x) (Mx \land Sx) \qquad \boxed{6} \qquad \boxed{0} \qquad \boxed{1} \qquad \boxed{0} \qquad \boxed{1}$	$(\exists x) (Mx \land Sx) $
$\therefore (\forall x) (Sx > Px) 7 0 0 1 0 0$	$\therefore (\forall x) (Sx > Px) 7 0 0 1 1 0 1$	$\therefore (\forall x) (Sx > Px) \qquad 7 \qquad 0 \qquad 0 \qquad 1 \qquad 0 \qquad 0 \qquad 1$	$\therefore (\forall x) (Sx > Px) \qquad 7 \qquad 0 \qquad 0 \qquad 1 \qquad 1 \qquad 0 \qquad 1$
8 0 0 0 0 0	8 0 0 0 0 1	8 0 0 0 0 0 1	8 0 0 0 0 1
1 1 1 1 1	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
Form: I-OIE	Form: II-OIE	Form: III-OIE	Form: IV-OIE
	∀	A E E E E E	3 3 3 3 A
$egin{array}{ c c c c c c c c c c c c c c c c c c c$		$oxed{S}$ $oxed{M}$ $oxed{P}$ $oxed{M} \wedge \begin{array}{c c} M \wedge S & S > \begin{array}{c c} S > \begin{array}{c c} P & M \wedge S & S > \begin{array}{c c} P $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is not P. 1 1 1 1 0 1	Some P is not M. 1 1 1 1 0 1 0	Some M is not P. 1 1 1 1 0 1 0	Some P is not M. 1 1 1 1 0 1 0
Some S is M. 2 1 1 0 1 1	Some S is M. 2 1 1 0 0 1 1	Some M is S. 2 1 1 0 1 1 1	Some M is S. 2 1 1 0 0 1 1
∴ All S is not P. 3 1 0 1 0 0	. All S is not P. 3 1 0 1 1 0 0	∴ All S is not P. 3 1 0 1 0 0 0	∴ All S is not P. 3 1 0 1 1 0 0
4 1 0 0 0 0	4 1 0 0 0 1	4 1 0 0 0 0 1	4 1 0 0 0 1
$(\exists x) (Mx \land "Px) 5 0 1 1 0 0$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$(\exists x) (Mx \land {}^{\alpha}Px) 5 0 1 1 0 0 1$	$(\exists x) (Px \land ``Mx) $ $\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	8 0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	8 0 0 0 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 0 1 1 1 1 1 0 1 1 1 1 1 1 0 1
1 1 1 1			
Form: I-OII	Form: II-OII	Form: III-OII	Form: IV-OII
3 3 3 3			
∃ ∃ ∃ ∃ ∃	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		
Some M is not P.	Some P is not M. Some S is M. Some S is P. Some S is D.	Some M is not P.	Some P is not M.
Some M is not P.	Some P is not M. Some S is M.	Some M is not P.	Some P is not M.
Some M is not P.	Some P is not M. Some S is M.	Some M is not P.	Some P is not M.
Some M is not P.	Some P is not M. Some S is M. Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Sx \land Mx)$ $(\exists x) (Sx \land Mx)$ $(\exists x) (Sx \land Mx)$ $(\exists x) (\Rightarrow A \land B \land$	Some M is not P.	Some P is not M.
Some M is not P.	Some P is not M. Some S is M. ($\exists x \in X \in$	Some M is not P. Some M is S. ∴ Some S is P. $(\exists x) (Mx \land ``Px)$ $(\exists x) (Mx \land Sx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land $	Some P is not M. Some M is S. ∴ Some S is P. $(∃x)(Px \land ``Mx)$ $(∃x)(Sx \land Px)$ $(∃x)(Sx \land Px)(Sx \land Px)$ $(∃x)(Sx \land Px)(Sx \land Px)(Sx$
Some M is not P.	Some P is not M. Some S is M. Some S is P. ($\exists x) (Px \land ``Mx)$ ($\exists x) (Px \land ``Mx)$ ($\exists x) (Sx \land Px)$	Some M is not P. Some M is S. Some S is P. $(\exists x) (Mx \land "Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (1 \Rightarrow x) ($	Some P is not M.
Some M is not P.	Some P is not M. Some S is M. Some S is P. ($\exists x) (Px \land ``Mx)$ ($\exists x) (Px \land ``Mx)$ ($\exists x) (Sx \land Px)$	Some M is not P.	Some P is not M.
Some M is not P.	Some P is not M. Some S is M. ($\exists x$) ($\exists x$	Some M is not P. Some M is S. Some S is P. $(\exists x) (Mx \land "Px)$ $(\exists x) (Sx \land Px)$	Some P is not M. Some M is S. ∴ Some S is P. (∃x) (Px ∧ "Mx) ∴ (∃x) (Sx ∧ Px) ∴ (∃x) (Sx ∧ Px) Form: IV-OIO
Some M is not P.	Some P is not M. Some S is M. ($\exists x$) ($\exists x$	Some M is not P.	Some P is not M.
Some M is not P.	Some P is not M. Some S is M. ($\exists x$) ($\exists x$	Some M is not P. Some M is S. Some S is P. $(\exists x) (Mx \land "Px)$ $(\exists x) (Sx \land Px)$	Some P is not M. Some M is S. Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Sx \land Px)$
Some M is not P.	Some P is not M. Some S is M. ($\exists x$) ($\exists x$	Some M is not P.	Some P is not M.
Some M is not P. Some S is M. ∴ Some S is P. (∃x) (Mx ∧ ^Px) ∴ (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Px) Some M is not P. Some M is not P. Some S is M. 1 1 1 1 1 0 1 1 1 1 0 0 0 0 0 0 0 0 0	Some P is not M. Some S is M. $(\exists x) (Px \land ^m x)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land P$	Some M is not P. Some M is S. ∴ Some S is P. (∃x) (Mx ∧ "Px) ∴ (∃x) (Sx ∧ Px) Tome M is S. ∴ Some M is S. ∴ Some S is P. (∃x) (Mx ∧ Sx) ∴ (∃x) (Sx ∧ Px) (∃x) (Sx ∧ Px) Tome M is not P. Some M is not P. Some M is S. ∴ Some S is not P. 1 1 1 1 1 0 1 1 1 0 1 1 1 0 0 0 0 1 1 1 1	Some P is not M. $\frac{Some\ M\ is\ S.}{.}$ ∴ Some S is P. $\exists\ \exists\ \exists$
Some M is not P. Some S is M. ∴ Some S is P. (∃x) (Mx ∧ ^Px) ∴ (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Px) Some M is not P. 1 1 1 1 1 0 1 1 1 0 0 0 0 0 0 0 0 0 0	Some P is not M. Some S is M. $(\exists x) (Px \land ^m x)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land P$	Some M is not P.	Some P is not M.
Some M is not P.	Some P is not M. Some S is M. $(\exists x) (Px \land ^m x)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land P$	Some M is not P.	Some P is not M.
Some M is not P.	Some P is not M. Some S is M. $(\exists x) (Px \land ^m x)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land P$	Some M is not P.	Some P is not M.
Some M is not P.	Some P is not M. Some S is M. $(\exists x) (Px \land ^m x)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land P$	Some M is not P.	Some P is not M.

Form: I-OOA	Form: II-OOA	Form: III-OOA	Form: IV-OOA
3 3 3 3 4 ∀	3 3 3 3 4 V	3 3 3 3 V	3 3 3 3 V 70 0 0 0
	Some P is not M. $\begin{bmatrix} S & M & P & P \land M & S \land M & S \gt P \\ 1 & 1 & 1 & 1 & 0 & 0 & 1 \end{bmatrix}$	Some M is not P. $\begin{bmatrix} S & M & P & M \land "P & M \land "S & S > P \\ 1 & 1 & 1 & 1 & 0 & 0 & 1 \end{bmatrix}$	Some P is not M. $\begin{bmatrix} S & M & P & P \land \text{``M} & M \land \text{``S} & S > P \\ 1 & 1 & 1 & 1 & 0 & 0 & 1 \end{bmatrix}$
Some S is not M. 2 1 1 0 1 0 0	Some S is not M. 2 1 1 0 0 0 0	Some M is not S. 2 1 1 0 1 0 0	Some M is not S. 2 1 1 0 0 0 0
∴ All S is P. 3 1 0 1 0 1 1	∴ All S is P. 3 1 0 1 1 1 1	∴ All S is P. 3 1 0 1 0 0 1	∴ All S is P. 3 1 0 1 1 0 1
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$(\exists x) (Px \land ``Mx)$ $\begin{vmatrix} 4 & 1 & 0 & 0 & 0 & 1 & 0 \\ 5 & 0 & 1 & 1 & 0 & 0 & 1 \end{vmatrix}$	$(\exists x) (Mx \land "Px) \begin{vmatrix} 4 & 1 & 0 & 0 & 0 & 0 & 0 \\ 5 & 0 & 1 & 1 & 0 & 1 & 1 \end{vmatrix}$	$(\exists x) (Px \land ``Mx)$ $\begin{vmatrix} 4 & 1 & 0 & 0 & 0 & 0 & 0 \\ 5 & 0 & 1 & 1 & 0 & 1 & 1 \end{vmatrix}$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$(\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > Px) \qquad 7 \qquad 0 \qquad 0 \qquad 1 \qquad 1 \qquad 0 \qquad 1$	$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > Px) $
8 0 0 0 0 1	8 0 0 0 0 0 1	8 0 0 0 0 0 1	8 0 0 0 0 0 1
1 1 1 1 0	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
Form: I-OOE	Form: II-OOE	Form: III-OOE	Form: IV-OOE
A E E E E	A E E E E	3 3 3 3 V	A E E E E
Some M is not P. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Some P is not M. 1 1 1 1 0 0 0	Some M is not P. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Some P is not M. $\begin{bmatrix} S & M & P & P \land M & M \land S & S \nearrow P \\ 1 & 1 & 1 & 1 & 0 & 0 & 0 \end{bmatrix}$
Some M is not P.	Some P is not M.	Some M is not P. 1 1 1 1 0 0 0 Some M is not S. 2 1 1 0 1 0 1	Some P is not M.
∴ All S is not P. 3 1 0 1 0 1 0	∴ All S is not P. 3 1 0 1 1 1 0	∴ All S is not P. 3 1 0 1 0 0 0	∴ All S is not P. 3 1 0 1 1 0 0
4 1 0 0 0 1 1	4 1 0 0 0 1 1	4 1 0 0 0 0 1	4 1 0 0 0 0 1
$(\exists x) (Mx \land \text{"Px})$ 5 0 1 1 0 0 1 $(\exists x) (Sx \land \text{"Mx})$ 6 0 1 0 1 0 1	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$(\exists x) (Mx \land \neg Px) \begin{vmatrix} 5 & 0 & 1 & 1 & 0 & 1 & 1 \\ (\exists x) (Mx \land \neg Sx) \end{vmatrix} \begin{vmatrix} 6 & 0 & 1 & 0 & 1 & 1 & 1 \end{vmatrix}$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
8 0 0 0 0 1	8 0 0 0 0 1	8 0 0 0 0 1	8 0 0 0 0 1
1 1 1 1 0	1 1 1 1 0	1 1 1 1 0	1 1 1 1 0
1 1 1 1 0			
1 1 1 1 1 0 Form: I-OOI			Form: IV-OOI
Form: I-OOI	Form: II-OOI	Form: III-OOI	Form: IV-OOI
Form: I-OOI	Form: II-OOI 3	Form: III-OOI	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Form: I-OOI $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: II-OOI 3 3 3 3 3 3 3 5 7 S M P P P \(\sigma \) M S \(\chi \) P Some P is not M.	Form: III-OOI	
Form: I-OOI	Form: II-OOI 3	Form: III-OOI	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Form: I-OOI	Form: II-OOI 3 3 3 3 3 3 3 3 S M P P ∧ "M S ∧ "M S ∧ P Some P is not M. 1 1 1 1 0 0 0 1* Some S is not M. 2 1 1 0 0 0 0 ∴ Some S is P. 3 1 0 1 1 1 1 1* 4 1 0 0 0 1 0 0 1 0	Form: III-OOI ∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ S M P M ∧ "P M ∧ "S S ∧ P Some M is not S. ∴ Some S is P.	Some P is not M. Some M is not S. ∴ Some S is P. $ \begin{vmatrix} 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 \\ 5 & M & P & P \land M & M \land S & S \land P \\ 1 & 1 & 1 & 1 & 0 & 0 & 1* \\ 2 & 1 & 1 & 0 & 0 & 0 & 0 & 0 \\ 3 & 1 & 0 & 1 & 1 & 0 & 1* \\ 4 & 1 & 0 & 0 & 0 & 0 & 0 \end{vmatrix} $
Form: I-OOI $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: II-OOI Some P is not M. Some S is not M. $3 3 3 3 3 3 3 3$ Some S is not M. $1 1 1 1 1 0 0 1^*$ Some S is P. $3 1 0 1 1 1 1^*$ $4 1 0 0 0 1 0$ $(\exists x) (Px \land ``Mx)$ $5 0 1 1 0 0 0$	Form: III-OOI 3 3 3 3 3 3 3 3 3	Some P is not M. Some M is not S. ∴ Some S is P. ∴ $(\exists x) (\exists x) $
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: II-OOI Some P is not M. Some S is not M. Some S is P. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: III-OOI 3 3 3 3 3 3 3 3 3	Some P is not M. Some M is not S. ∴ Some S is P. $(∃x)(Px \land ``Mx)(∃x)(Mx \land ``Sx)(Ax)(Ax)(Ax)(Ax)(Ax)(Ax)(Ax)(Ax)(Ax)(A$
Form: I-OOI $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: II-OOI Some P is not M. Some S is not M. $3 3 3 3 3 3 3 3$ Some S is not M. $1 1 1 1 1 0 0 1^*$ Some S is P. $3 1 0 1 1 1 1^*$ $4 1 0 0 0 1 0$ $(\exists x) (Px \land ``Mx)$ $5 0 1 1 0 0 0$	Form: III-OOI 3 3 3 3 3 3 3 3 3	Some P is not M. Some M is not S. ∴ Some S is P. ∴ $(\exists x) (\exists x) $
Form: I-OOI Some M is not P. 1 1 1 1 0 0 1 1 0 0 1 1	Form: II-OOI Some P is not M. 1 1 1 1 1 0 0 0 1* Some S is not M. 2 1 1 0 0 0 0 1* Some S is P. 3 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Form: III-OOI Some M is not P. Some M is not S. Cape M is not P. Cape M is not S. Cape M	Some P is not M. Some M is not S. ∴ Some S is P. ∴ Some S is P. ∴ $(\exists x) (Px \land ``Mx)$ $(\exists x) (Mx \land ``Sx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: II-OOI Some P is not M. 1 1 1 1 1 0 0 0 1* Some S is not M. 2 1 1 0 0 0 0 1* Some S is P. 3 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Form: III-OOI Some M is not P. Some M is not S.	Some P is not M. Some M is not S. ∴ Some S is P. ∴ $(\exists x) (Px \land ^mMx)$ $(\exists x) (Px \land ^mMx)$ $(\exists x) (Px \land ^mMx)$ $(\exists x) (Sx \land Px)$ $(\exists x) $
Form: I-OOI Some M is not P. Some S is not M. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: II-OOI Some P is not M. Some S is not M. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: III-OOI Some M is not P. Some M is not S.	Some P is not M. Some M is not S. ∴ Some S is P. ∴ $(\exists x) (Px \land ^mMx)$ $(\exists x) (Px \land $
Form: I-OOI Some M is not P. $3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3$	Form: II-OOI Some P is not M. Some S is not M. \[\begin{array}{c ccccccccccccccccccccccccccccccccccc	Form: III-OOI Some M is not P. Some M is not S. ∴ Some S is P. (∃x) (Mx ∧ ¬x) x (∃x) x (∃x) (Mx ∧ ¬x) x (∃x) x (∃x) (Mx ∧ ¬x) x (∃x) (Mx ∧ ¬x) x (∃x) x (∃x	Some P is not M. Some M is not S. ∴ Some S is P. ∴ Some S is P. ∴ $(\exists x) (Px \land ^mMx)$ $(\exists x) (Mx \land ^mSx)$
Form: I-OOI Some M is not P. $3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3$	Form: II-OOI Some P is not M.	Form: III-OOI Some M is not P. Some M is not S. ∴ Some S is P. (∃x) (Mx ^ Px) (Mx ^ Sx) (Hx ^	Some P is not M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Mx \land ``Sx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (S$
Form: I-OOI Some M is not P. $3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3$	Form: II-OOI Some P is not M. Some S is not M. \[\begin{array}{c ccccccccccccccccccccccccccccccccccc	Form: III-OOI Some M is not P. Some M is not S. 1	Some P is not M. Some M is not S. ∴ Some S is P. ∴ Some S is P. ∴ $(\exists x) (Px \land ^mMx)$ $(\exists x) (Mx \land ^mSx)$
Form: I-OOI Some M is not P. $3 1 1 0 1 0 0 1 1^*$ Some S is P. $3 1 0 1 0 0 0 1^*$ (∃x) (Sx ∧ "Mx) 6 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Form: II-OOI Some P is not M. Some S is not M. Some S is not M. Some S is P. Some S is not M. Some S is not M. Some S is not M. Some S is not P. Som	Form: III-OOI 3	Some P is not M. Some M is not S. ∴ Some S is P. (∃x) (Px ∧ "Mx) ∴ (∃x) (Sx ∧ Px) ∴ (∃x) (Sx ∧ Px) ∴ (∃x) (Sx ∧ Px) Some P is not M. Some M is not S. ∴ Some S is not P. Some D is not M. Some M is not S. ∴ Some S is not P. Some S is not P. Some D is not M. Some M is not S. ∴ Some S is not P. Some S is not P. Some D is not M. Some M is not S. ∴ Some S is not P. Some S is not P. Some D is not M. Some M is not S. ∴ Some S is not P. Some D is not M. Some M is not S. ∴ Some S is not P. Some S is not P. Some D is not M. Some M is not S. ∴ Some S is not P. Some D is not M. Some M is not S. ∴ Some S is not P. Some D is not M. Some M is not S. ∴ Some S is not P.
Form: I-OOI Some M is not P.	Form: II-OOI Some P is not M. Some S is not M. \[\begin{array}{c ccccccccccccccccccccccccccccccccccc	Form: III-OOI Some M is not P. Some S is P.	Some P is not M. Some M is not S. ∴ Some S is P. ∴ $(\exists x) (\exists x) (\exists x \land Px)$ Form: IV-OOO Some P is not M. Some P is not M. ∴ Some S is not P. ∴ $(\exists x) (Px \land ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $($
Form: I-OOI Some M is not P. Some S is P. (∃x) (Mx ∧ "Px) ∴ (∃x) (Sx ∧ Px) Some M is not P. 1 1 1 1 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0	Form: II-OOI Some P is not M. Some S is not M. Some S is P. Some S is not M. Some S is not M. Some S is not P. Some	Form: III-OOI Some M is not P. Some S is P.	Some P is not M. Some M is not S. ∴ Some S is P. ∴ $(\exists x) (\exists x) (\exists x \land Px)$ Form: IV-OOO Some P is not M. Some P is not M. ∴ Some S is not P. ∴ $(\exists x) (Px \land ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (S$
Form: I-OOI Some M is not P.	Form: II-OOI Some P is not M. Some S is not M. \[\begin{array}{c ccccccccccccccccccccccccccccccccccc	Form: III-OOI Some M is not P. Some S is P.	Some P is not M. Some M is not S. ∴ Some S is P. ∴ $(\exists x) (\exists x) (\exists x \land Px)$ Form: IV-OOO Some P is not M. Some P is not M. ∴ Some S is not P. ∴ $(\exists x) (Px \land ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $($