Form: I-AAA (15, 19, 24)	Form: II-AAA	Form: III-AAA	Form: IV-AAA
A A A A	A A A A	A B E E E I	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
All M is P. 1 1 1 1 1 1	All P is M. 1 1 1 1 1 1 1	All M is P. 1 1 1 1 1 1 1	All P is M. 1 1 1 1 1 1 1
All S is M. 2 1 1 0 0 1 0	All S is M. 2 1 1 0 1 1 0	All M is S. 2 1 1 0 0 1 0	All M is S. 2 1 1 0 1 1 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 1 1	∴ All S is P. 3 1 0 1 0 1 1
4 1 0 0 1 0 0	4 1 0 0 1 0 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	$(\forall x) (Px > Mx)$ 5 0 1 1 1 1	$(\forall x) (Mx > Px) $ 5 0 1 1 1 0 1	$(\forall x) (Px > Mx)$ 5 0 1 1 1 0 1
$(\forall x) (Sx > Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 1$	$(\forall x) (Sx > Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 1 \qquad 1$	$(\forall x) (Mx > Sx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 1$	$(\forall x) (Mx > Sx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 1$
$\therefore (\forall x) (Sx > Px) \qquad 7 \qquad 0 \qquad 0 \qquad 1 \qquad 1 \qquad 1 \qquad 1$	$\therefore (\forall x) (Sx > Px) \qquad 7 \qquad 0 \qquad 0 \qquad 1 \qquad 1$	$\therefore (\forall x) (Sx > Px) \qquad 7 \qquad 0 \qquad 0 \qquad 1 \qquad 1 \qquad 1 \qquad 1$	$\therefore (\forall x) (Sx > Px) \qquad 7 \qquad 0 \qquad 0 \qquad 1 \qquad 1$
		8 0 0 0 1 1 1	8 0 0 0 1 1 1
Form: I-AAE	Form: II-AAE	Form: III-AAE	Form: IV-AAE
1		[] 3] 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
All M is P. 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
All S is M. 2 1 1 0 0 1 1	All S is M. 2 1 1 0 1 1 1	All M is S. 2 1 1 0 0 1 1	All M is S. 2 1 1 0 1 1 1
∴ 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 1 0	∴ All S is not P. 3 1 0 1 0 1 0
4 1 0 0 1 0 1	4 1 0 0 1 0 1	4 1 0 0 1 1 1	4 1 0 0 1 1 1
$(\forall x) (Mx > Px)$ 5 0 1 1 1 1	$(\forall x) (Px > Mx)$ 5 0 1 1 1 1	$(\forall x) (Mx > Px)$ 5 0 1 1 1 0 1	$(\forall x) (Px > Mx)$ 5 0 1 1 1 0 1
$(\forall x) (Sx > Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 1$	$(\forall x) (Sx > Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 1 \qquad 1$	$(\forall x) (Mx > Sx)$ 6 0 1 0 0 1	$(\forall x) (Mx > Sx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 1$
$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > ^nPx) 7 0 0 1 0 1 1$	$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > Px) $
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
Form: I-AAI (24)	Form: II-AAI	Form: III-AAI (19, 24)	Form: IV-AAI (19, 24)
	E V V E E E E	the contract of the contract o	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	E A A E E E	E A A E E E
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	All P is M. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
All M is P. All S is M. ∴ Some S is P.	All P is M. All S is M. ∴ Some S is P.	All M 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 M is S. Some S is P.
All M is P. All S is M. ∴ Some S is P. $(∀x) (Mx > Px)$	All P is M. All S is M. ∴ Some S is P.	All M is P. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
All M is P. All S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > Mx)$ $(∀x) (Sx > Mx)$ $(∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) $	All P is M. All S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > Mx)$ All B is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > Mx)$ All B is M. $(\forall x) (Px > Mx)$ $(\forall x) (Px > Mx$	All M is P. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	All P is M. All S is M. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∀x) (Sx > Mx)$ $(∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) $	All M is P. All M is S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > Px)$ $(\exists \exists \exists \exists \forall \forall \forall \exists \exists \exists \land Px$ $Some S is P. $ $(\exists \exists \exists \exists \exists \forall \forall \forall \forall \exists \exists$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
All M is P. All S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > Mx)$ $(∀x) (Sx > Mx)$ $(∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) $	All P is M. All S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > Mx)$ All B is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > Mx)$ All B is M. $(\forall x) (Px > Mx)$ $(\forall x) (Px > Mx$	All M 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 M is S. ∴ Some S is P. $(∀x) (Px > Mx) (∀x) (Mx > Sx)$ $(∀x) (Mx > Sx)$ $(∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) $
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	All P is M. All S is M. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∀x) (Sx > Mx)$ $(∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) $	All M is P. All M is S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > Px)$ $(\exists \exists \exists \exists \forall \forall \forall \exists \exists \exists \land Px$ $Some S is P. $ $(\exists \exists \exists \exists \exists \forall \forall \forall \forall \exists \exists$	All P is M. All M is S. ∴ Some S is P. $(∀x) (Px > Mx) (∀x) (Sx ∧ Px)$ ∴ (∃x) (Sx ∧ Px) $(∀x) (Sx ∧ Px) (∀x) (Tx) (Tx) (Tx) (Tx) (Tx) (Tx) (Tx) (T$
All M is P. All S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) $	All P is M. All S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (\exists x \land Px)$ $(\exists x) (\exists x \land Px)$ Form: II-AAO	All M is P. All M is S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$	All P is M. All M is S. Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (\exists x) (Sx \land Px)$ All P is M. All M is S. 2 1 1 0 1 1 0 1 1 0 3 1 0 1 0 1 1 0 4 1 0 0 1 1 0 5 0 1 1 1 0 0 6 0 1 0 1 0 0 7 0 0 0 1 0 1 0 8 0 0 0 0 1 1 0
All M is P. All S is M. ∴ Some S is P. $(\forall x) (Mx > Px) (\exists x) (\exists$	All P is M. All S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (\exists x \land Px)$ $(\exists x) (\exists x \land Px)$ Form: II-AAO $(\exists x) (\exists x \land Px)$ $(\exists x \exists x \exists Px)$ $(\exists x \exists x \exists Px)$ $(\exists x \exists x \exists Px)$ $(\exists x \exists x $	All M is P. All M is S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ Form: III-AAO	All P is M. All M is S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (\exists x) (Sx \land Px)$ ∴ Form: IV-AAO $\begin{vmatrix} \exists & \exists & \exists & \forall & \forall & \exists \\ S & M & P & P > M & M > S & S \land P \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 \\ 2 & 1 & 1 & 0 & 1 & 1 & 0 \\ 3 & 1 & 0 & 1 & 0 & 1 & 1 \\ 4 & 1 & 0 & 0 & 1 & 1 & 0 \\ 5 & 0 & 1 & 1 & 1 & 0 & 0 \\ 6 & 0 & 1 & 0 & 1 & 0 & 0 \\ 7 & 0 & 0 & 1 & 0 & 1 & 0 & 0 8 & 0 & 0 & 0 & 1 & 1 & 0 Form: IV-AAO$
All M is P. All S is M. ∴ Some S is P. $(\forall x) (Mx > Px) (\forall x) (Sx > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\exists x) (Sx \land Px)$ All M is P. All M is P. $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ All M is P. $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (Sx \land Px) ($	All P is M. All S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (\exists x) (Sx \land Px)$ All P is M. All P is M. $(\exists x) (\exists x) ($	All M is P. All M is S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is P. $(\exists x) (\exists x) ($	All P is M. All M is S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Sx \land Px)$ ∴ (∃x) (Sx \(\delta Px)\) All P is M.
All M is P. All S is M. ∴ Some S is P. $(\forall x) (Mx > Px) (\forall x) (Sx ∧ Px)$ ∴ (∃x) (Sx ∧ Px) $(\exists x) (Sx ∧ Px)$ All M is P. All S is M. $(\exists x) (Sx ∧ Px)$ $(\exists x) (Sx ∧ Px)$ All M is P. All S is M. $(\exists x) (Sx ∧ Px)$	All P is M. All S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (\exists x$	All M is P. All M is S. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All M is P. $(\exists x) (Sx \land Px)$ $(\exists x) (S$	All P is M. All M is S. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∀x) (Sx \land Px)$ ∴ $(∃x) (Sx \land Px)$ All P is M. All M is S. All P is M. All M is S. $2 1 1 0 1 1 0$ $3 1 0 1 0 1 1$ $4 1 0 0 1 1$ $5 0 1 1 1 0$ $6 0 1 0 1 0$ $7 0 0 1 0 1$ $8 0 0 0 1 1$ $9 0 0$ $8 0 0 0 1 1$ $9 0 0$ $9 0 1 0 1$ $9 0 0$ $9 0 0 1 1$ $9 0 0$ $9 0 0 1 0$ $1 1 0$ $1 0 0$ $1 0 0$ $2 1 0 1$ $3 0 0 1$ $4 1 0 0$ $5 0 1 1 1$ $6 0 1 0 1$ $8 0 0 0 1$ $1 1 0$ $1 0 0$ $1 1 0$ $1 0 0$ $1 1 0$ $2 1 1 1$ $1 0$
All M is P. All S is M. ∴ Some S is P. $(\forall x) (Mx > Px) (\forall x) (Sx > Mx)$ ∴ (∃x) (Sx \land Px) $(\exists x) (Sx \land Px)$ All M is P. All M is P. All S is M. ∴ Some S is not P. $(\exists x) (Sx \land Px)$ $(\exists x) $	All P is M. All S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (\exists x$	All M is P.	All P is M. All M is S. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∀x) (Mx > Sx)$ $∴ (∃x) (Sx ∧ Px)$ All P is M. All M is S. ∴ Some S is not P. $(∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) $
All M is P. All S is M. ∴ Some S is P. $(\forall x) (Mx > Px) (\forall x) (Sx > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\exists x) (Sx \land Px)$ All M is P. All M is P. All S is M. ∴ Some S is not P. $(\exists x) (Sx \land Px)$ $(\exists x) (S$	All P is M. All S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) All P is M. $(\forall x) (Px > Mx)$ $(∀x) (Fx > Mx)$	All M is P.	All P is M. All M is S. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∀x) (Mx > Sx)$ $∴ (∃x) (Sx ∧ Px)$ All P is M. All M is S. ∴ Some S is not P. $All P is M.$ $All M is S.$ $∴ Some S is not P.$ $All D is M.$ $All M is S.$ ∴ Some S is not P. $All D is M.$ $All M is S.$ ∴ Some S is not P. $All D is M.$ $All M is S.$ ∴ Some S is not P.
All M is P. All S is M. ∴ Some S is P. $(\forall x) (Mx > Px) (\exists x) (\exists$	All P is M. All S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) All P is M. $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) All P is M. All P is M. $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) All P is M. All S is M. ∴ Some S is not P. $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Tx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Tx ∧ Px) $(\forall x) (Px > Mx)$	All M is P. All M is S. ∴ Some S is P. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x$	All P is M. All M is S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\exists x) (Sx \land Px)$ ∴ (∃x) (Sx \(\delta P\)) All P is M. All P is M. All B is M. All B is M. All B is M. All D is M. All
All M is P. All S is M. ∴ Some S is P. $(\forall x) (Mx > Px) (\exists x) (\exists$	All P is M. All S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) All P is M. $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) All P is M. $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\forall x) (Px > Mx)$ ∴ (∀x) (Px > Mx)	All M is P.	All P is M. All M is S. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∀x) (Sx \land Px)$ $∴ (∃x) (Sx \land Px)$ All P is M. All M is S. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∀x) (Mx > Sx)$ $∴ (∃x) (Sx \land Px)$ All P is M. All M is S. ∴ Some S is not P. $(∀x) (Px > Mx)$
All M is P. All S is M. ∴ Some S is P. $(\forall x) (Mx > Px) (\exists x) (\exists$	All P is M. All S is M. ∴ Some S is P. $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) All P is M. $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\exists x) (Sx ∧ Fx)$ All P is M. All P is M. All S is M. $(\forall x) (Px > Mx)$ ∴ (∃x) (Sx ∧ Px) $(\exists x) (Sx ∧ Fx)$ All P is M. All S is M. All S is M. $(\forall x) (Px > Mx)$ ∴ Some S is not P. $(\forall x) (Px > Mx)$ ∴ (∃x) (∃x) (∃x) (∃x) $(\exists x) (Sx ∧ Fx)$ All D is M. All D is M. All S is M. All D is M. All D is M. All S is M. All D is M. All	All M is P. All M is S. ∴ Some S is P. ∴ Some S is P. $(\forall x) (Mx > Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x$	All P is M. All M is S. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∀x) (Sx \land Px)$ $∴ (∃x) (Sx \land Px)$ All P is M. All M is S. ∴ Some S is P. $(∀x) (Px > Mx)$ $(∀x) (Mx > Sx)$ $∴ (∃x) (Sx \land Px)$ All P is M. All M is S. ∴ Some S is not P. $(∀x) (Px > Mx)$

	Form: I-AEA			Form: II-AEA			Form: III-AEA			Form: IV-AEA	
	A B B B B	\forall		A E E E	A A		A E E E	, 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 P.	1 1 1 1 1	0 1	All P is M.	1 1 1 1 1	0 1	All M is P.	1 1 1 1 1	. 0 1	All P is M.	1 1 1 1 1	1
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
∴ All S is P.	3 1 0 1 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	∴ 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 1	$(\forall x) (Mx > Px)$	5 0 1 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 1	$(\forall x) (Mx > "Sx)$	6 0 1 0 0		$\frac{(\forall x) (Mx > "Sx)}{}$	6 0 1 0 1	1 1
$\therefore (\forall x) (Sx > Px)$	7 0 0 1 1	1 1	\therefore (\forall x)($Sx > Px$)	7 0 0 1 0	1 1	$(\forall x) (Sx > Px)$	7 0 0 1 1		$\therefore (\forall x) (Sx > Px)$	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
	Form: I-AEE			Form: II-AEE (15,	, 19, 24)		Form: III-AEE			Form: IV-AEE (15, 19), 24)
	A B E E E	A A		3 3 3 A	A A		3 3 3 A			3 3 3 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 P.		0 0	All P is M.	1 1 1 1 1	0 0		1 1 1 1 1		All P is M.	1 1 1 1 1	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		All M is not S.		1
∴ All S is not P.	3 1 0 1 1	1 0	∴ All S is not P.		1 0	∴ All S is not P.	3 1 0 1 1	- -	∴ All S is not P.		1 0
	4 1 0 0 1	1 1		4 1 0 0 1	1 1		4 1 0 0 1				1 1
$(\forall x) (Mx > Px)$		1 1	$(\forall x) (Px > Mx)$		1 1		5 0 1 1 1		$(\forall x) (Px > Mx)$		1 1
$\frac{(\forall x) (Sx > "Mx)}{(\forall x) (Sx > "Mx)}$	6 0 1 0 0	1 1	$\frac{(\forall x) (Sx > "Mx)}{(\forall x) (Sx > "Mx)}$	6 0 1 0 1	1 1	$\frac{(\forall x) (Mx > "Sx)}{(\forall x) (Mx > "Sx)}$	6 0 1 0 0		$\frac{(\forall x) (Mx > "Sx)}{}$		1 1
$\therefore (\forall x) (Sx > ^{n}Px)$	7 0 0 1 1	1 1	$\therefore (\forall x) (Sx > ^{n}Px)$		1 1	$\therefore (\forall x) (Sx > "Px)$	7 0 0 1 1		$\therefore (\forall x) (Sx > ^{n}Px)$		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
		-									
	Form: I-AEI			Form: II-AEI			Form: III-AEI		1	Form: IV-AEI	
	A B B A	E V		V E E E E	EV		A E E E			3 3 3 A	∀ ∃
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	S > "M S \ P		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	S > "M S ∧ P		3 3 3 V S M P M>	\cdot P M > "S S \wedge P]	∃ ∃ ∃ ∀ S S M P P > M M	- "S S ∧ P
All M is P.		S > "M S \ P 0 1		∃ ∃ ∃ ∀ S M P P > M 1 1 1 1 1	S > "M S ∧ P 0 1		S M P M > 1 1 1 1 1 1	P M > "S S ∧ P 0 1	All P is M.	3 3 V N N N N N N N N N	- S S ∧ P D 1
All S is not M.	3 3 3 S M P M > P 1 1 1 1 2 1 1 0 0	S > "M S \ P	All S is not M.		S > "M S ∧ P 0 1 0 0	All M is not S.		$\begin{array}{c cccc} P & M > \text{``S} & S \wedge P \\ \hline 0 & 0 & 0 \\ \end{array}$	All M is not S.	3 3 7 N N N N N N N N N	- "S S \ P 0 1 0 0
All S is not M.	∃ ∃ ∃ ∀ S M P M > P S 1 1 1 1 1 2 1 1 0 0 3 1 0 1 1	$S > M$ $S \wedge P$ 0 1 0 0 1 1 1			S > "M S ∧ P 0 1 0 0 1 1 1		3 3 7 8 8 8 8 8 8 8 8 8	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		3 3 7 N N N N N N N N N	- "S S ∧ P
All S is not M. ∴ Some S is P.	3 3 3 4 1 1 1 1 1 2 1 1 0 0 3 1 0 1 1 4 1 0 0 1	$S > M$ $S \wedge P$ $\begin{array}{c c} 0 & 1 \\ 0 & 0 \\ 1 & 1 \\ 1 & 0 \\ \end{array}$	All S is not M. ∴ Some S is P.		S > "M S ∧ P 0 1 0 0 1 1 1 1 0	All M is not S. ∴ Some S is P.	3 3 9 1 1 1 1 1 1 1 1 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	_All M is not S. ∴ Some S is P.	3 3 7 N N N N N N N N N	
All S is not M. Some S is P. $(\forall x) (Mx > Px)$	3 3 3 4 1 1 1 1 1 2 1 1 0 0 3 1 0 1 1 4 1 0 0 1 5 0 1 1 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	All S is not M. Some S is P. $(\forall x) (Px > Mx)$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$	Here Here	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$	3 3 9 M 1 1 1 1 1 1 1 1 1	"S S A P O 1 O 1 O 1 O 1 O 0 O 1 O 0 O 1 O 0 O 1 O 0 O 1 O 0 O 1 O 0 O 1 O 0 O 0
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > ^m X)$	3 3 3 4 1 1 1 1 1 2 1 1 0 0 3 1 0 1 1 4 1 0 0 1 5 0 1 1 1 6 0 1 0 0	S > "M S \ P	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > ^mMx)$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > x)$	Here Here	P M > "S S ∧ P 0 0 1 0 0 0 0 1 1 1 1 0 1 0 0 1 0 1 0 0 1 0 1	All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > ^xSx)$. "S S ∧ P 0 1 0 0 1 1 1 1 0 1 0 1 0 1 0
All S is not M. Some S is P. $(\forall x) (Mx > Px)$	3 3 3 4 1 1 1 1 1 1 2 1 1 0 0 3 1 0 1 1 4 1 0 0 1 5 0 1 1 1 6 0 1 0 0 7 0 0 1 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > ^m Mx)$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$	Here Here	P M > "S S ∧ P 0 0 1 0 0 0 0 1 1 1 1 1 0 1 0 1 0 1 0 1	All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$. "S S ∧ P 0 0 1 0 0 1 1 1 0 1 0 1 0 1 0 1 0 1 0
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > ^m X)$	3 3 3 4 1 1 1 1 1 2 1 1 0 0 3 1 0 1 1 4 1 0 0 1 5 0 1 1 1 6 0 1 0 0	S > "M S \ P	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > ^mMx)$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > x)$	Here Here	P M > "S S ∧ P 0 0 1 0 0 0 1 1 1 1 1 0 1 0 1 0 1 0 0 1 1 0 1 0 0 1 1 0	All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > ^xSx)$. "S S ∧ P 0 1 0 0 1 1 1 1 0 1 0 1 0 1 0
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > ^m X)$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > ^mMx)$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > x)$	Here Here	P M > "S S \ P 0 1 0 0 0 1 1 1 1 1 1 0 1 0 1 0 1 0 1	All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > ^xSx)$. "S S ∧ P 0 0 1 0 0 1 1 1 0 1 0 1 0 1 0 1 0 1 0
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > ^m X)$		S > M S \ P O 1 O O O O O O O O O O O O O O O O O	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > ^mMx)$		S > "M S \ P O 1 O O O O O O O O O O O O O O O O O	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > x)$	3 3 9 7 8 M P M N N N N N N N N N	P M > "S S \ P 0 1 0 0 0 1 1 1 1 1 1 0 1 0 1 0 1 0 1	All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > ^xSx)$	3 3 7 N N N N N N N N N	S S ∧ P
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > ^m X)$		S > ™ S ∧ P 0 1 0 0 1 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > ^mMx)$		S > "M S ∧ P O	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > x)$	Here Here Here Here Here	P M > "S S ∧ P 0 0 1 0 0 0 0 1 1 1 1 1 1 0 1 0 1 0 1 0 1 0	All M is not S. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > "Sx)$ $∴ (\exists x) (Sx \land Px)$		S S ∧ P
All S is not M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Sx > ^mx)$ ∴ $(\exists x) (Sx \land Px)$		S > "M S ∧ P 0 1 0 0 1 1 1 1 1 0 1 0 1 0 1 0 1 0 1	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > ^Mx)$ $∴ (\exists x) (Sx \land Px)$		S > "M S ∧ P O	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > ^*Sx)$ $∴ (\exists x) (Sx \land Px)$	Here Here Here Here	P M > "S S ∧ P 0 0 1 0 0 0 0 1 1 1 0 1 0 1 0 1 0 1 1 0 1 0	All M is not S. \therefore Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > "Sx)$ $\therefore (\exists x) (Sx \land Px)$		S S P D D D D D D D D D
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.		S > "M S ∧ P 0 1 0 0 1 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 S > "M S ∧ "P 0 0	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $\underline{(\forall x) (Sx > `Mx)}$ $\overline{(\exists x) (Sx \land Px)}$ All P is M.		S > "M S ∧ P O	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > ^xSx)$ $∴ (∃x) (Sx \land Px)$ All M is P.	3 3 7	P M > "S S ∧ P 0 0 1 0 0 0 0 1 1 1 1 1 0 1 0 1 0 1 0 1	All M is not S. \therefore Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > \text{`Sx})$ $\therefore (\exists x) (Sx \land Px)$ All P is M.		S S P D D D D D D D D D
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.		S > "M S ∧ P 0 1 0 0 1 1 1 0 1 0 1 0 1 0 1 0 2 3 N = "M" N = "P" 0 0 0 0 1 0 1 0 0 0 0 1	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > ^Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is M. All S is not M.		S > "M S ∧ P O	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > ^xSx)$ $∴ (∃x) (Sx \land Px)$ All M is P. All M is not S.		P M > "S S ∧ P 0 0 1 0 0 0 1 1 1 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 1 0 1 1 0 1 1 1 0 1 1 1 0 1 1 1 0 1 1 1 1	All M is not S. \therefore Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > ^xSx)$ $\therefore (\exists x) (Sx \land Px)$ All P is M. All M is not S.		S S P D D D D D D D D D
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.		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	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $\underline{(\forall x) (Sx > `Mx)}$ $\overline{(\exists x) (Sx \land Px)}$ All P is M.		S > "M S \land P O	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > ^xSx)$ $∴ (∃x) (Sx \land Px)$ All M is P.		P M > "S S ∧ P 0 0 1 0 0 0 1 1 1 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 0	All M is not S. \therefore Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > \text{`Sx})$ $\therefore (\exists x) (Sx \land Px)$ All P is M.		S S P D D D D D D D D D
All S is not M. ∴ Some S is P. (∀x) (Mx > Px) (∀x) (Sx > ~Mx) ∴ (∃x) (Sx ∧ Px) All M is P. All S is not M. ∴ Some S is not P.		S > "M S ∧ P 0 1 0 0 1 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 0 1 1 0 1 0 1 1 1 0 1 1	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > `Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is M. All S is not M. ∴ Some S is not P.		S > "M S ∧ P O	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > ^xSx)$ $∴ (∃x) (Sx \land Px)$ All M is P. All M is not S. ∴ Some S is not P.		P M > "S S ∧ P 0 0 1 0 0 0 0 1 1 1 1 1 0 1 0 1 0 1 0 1	All M is not S. ∴ Some S is P. (∀x) (Px > Mx) (∀x) (Mx > ~Sx) ∴ (∃x) (Sx ∧ Px) All P is M. All M is not S. ∴ Some S is not P.		S S P D D D D D D D D D
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. $(\forall x) (Mx > Px)$		S > ™ S ∧ P 0 1 0 0 1 1 1 0 1 0 1 0 1 0 1 0 2 0 0 1 1 0 1 0 1 1 1 0 1 1 1 0	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > ^mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is M. All S is not M. ∴ Some S is not P. $(\forall x) (Px > Mx)$		S > "M S ∧ P O	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > ^xSx)$ $∴ (∃x) (Sx \land Px)$ All M is P. All M is not S. ∴ Some S is not P. $(\forall x) (Mx > Px)$		P M > "S S ∧ P 0 0 1 0 0 0 0 1 1 1 1 1 0 1 0 1 0 1 0 1	All M is not S. \therefore Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > ^xSx)$ $\therefore (\exists x) (Sx \land Px)$ All P is M. All M is not S. \therefore Some S is not P. $(\forall x) (Px > Mx)$		S S P D D D D D D D D D
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. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > Px)$ $(\forall x) (Sx > `Mx)$		S > "M S ∧ P 0 1 0 0 1 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 0 1 1 0 1 0 1 1 1 0 1 1	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > `Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is M. All S is not M. ∴ Some S is not P.		S > "M S ∧ P O	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > ^xSx)$ $∴ (∃x) (Sx \land Px)$ All M is P. All M is not S. ∴ Some S is not P. $(\forall x) (Mx > ^xSx)$ $(\forall x) (Mx > ^xSx)$		P M > "S S ∧ P 0 0 1 0 0 0 0 1 1 1 1 1 0	All M is not S. ∴ Some S is P. (∀x) (Px > Mx) (∀x) (Mx > ~Sx) ∴ (∃x) (Sx ∧ Px) All P is M. All M is not S. ∴ Some S is not P.		S S P D D D D D D D D D
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. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > Px)$ $(\forall x) (Sx > `Mx)$		S > "M S ∧ P 0 1 0 0 1 1 1 0 1 0 1 0 1 0 1 0 2 0 0 1 1 0 1 1 1 0 1 0 1 0 1 0 1 0	All S is not M. ∴ Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Sx > ^mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is M. All S is not M. ∴ Some S is not P. $(\forall x) (Px > Mx)$ $(\forall x) (Px > Mx)$ $(\forall x) (Sx > ^mx)$		S > "M S \land P O O O O O O O O O	All M is not S. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\forall x) (Mx > ^xSx)$ $∴ (∃x) (Sx \land Px)$ All M is P. All M is not S. ∴ Some S is not P. $(\forall x) (Mx > ^xSx)$ $(\forall x) (Mx > ^xSx)$		P M > "S S ∧ P 0 0 1 0 0 0 0 0 1 1 0 1 0 1 0 1 0 1 0 1	All M is not S. \therefore Some S is P. $(\forall x) (Px > Mx)$ $(\forall x) (Mx > ^{x}Sx)$ $\therefore (\exists x) (Sx \land Px)$ All P is M. All M is not S. \therefore Some S is not P. $(\forall x) (Px > Mx)$ $(\forall x) (Px > Mx)$ $(\forall x) (Mx > ^{x}Sx)$		S S P D D D D D D D D D

Form: I-AIA	Form: II-AIA	Form: III-AIA	Form: IV-AIA
	A E E E E I	$oxed{ eta}$	
$S M P M > P S \wedge M S > P$	S M P $P > M$ $S \wedge M$ $S > P$	S M P $M > P$ $M \wedge S$ $S > P$	S M P $P > M$ $M \land S$ $S > P$
All M is P. 1 1 1 1 1 1 1	All P is M. 1 1 1 1 1 1 1	All M is P. 1 1 1 1 1 1 1	All P is M. 1 1 1 1 1 1
Some S is M. 2 1 1 0 0 1 0	Some S is M. 2 1 1 0 1 1 0	Some M is S. 2 1 1 0 0 1 0	Some M is S. 2 1 1 0 1 1 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	∴ All S is P. 3 1 0 1 0 0 1
4 1 0 0 1 0 0	4 1 0 0 1 0 0	4 1 0 0 1 0 0	4 1 0 0 1 0 0
$(\forall x) (Mx > Px)$ 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) $
$(\exists x) (Sx \land Mx) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	$(\exists x)(Sx \land Mx)$ 6 0 1 0 1 0 1	$(\exists x) (Mx \land Sx) $	$(\exists x) (Mx \land Sx) $
$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > Px) \qquad 7 \qquad 0 \qquad 0 \qquad 1$
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
Form: I-AIE	Form: II-AIE	Form: III-AIE	Form: IV-AIE
A B B B A B A	A B E E E	A B B B A B A	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
All M is P. 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. 2 1 1 0 0 1 1	Some S is M. 2 1 1 0 1 1 1	Some M is S. 2 1 1 0 0 1 1	Some M is S. 2 1 1 0 1 1 1
∴ 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	∴ All S is not P. 3 1 0 1 0 0 0
4 1 0 0 1 0 1	4 1 0 0 1 0 1	4 1 0 0 1 0 1	4 1 0 0 1 0 1
$(\forall x) (Mx > Px) 5 0 1 1 0 1$	$(\forall x) (Px > Mx) \qquad 5 \qquad 0 \qquad 1 \qquad 1 \qquad 0 \qquad 1$	$(\forall x) (Mx > Px) $	$(\forall x) (Px > Mx) $
$ \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 0 1			8 0 0 0 1 0 1
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	3 3 3 V 3 3	Form: IV-AII
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	3 3 3 V 3 3	B B B B B B B B B B B B B B B B B B B
$ \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 P is M. Some S is M. Some S is P.	All M is P. Some M is S. ∴ Some S is P.	All P is M. Some M is S. ∴ Some S is P.
All M is P. All M is P. Some S is M. Some S is P. Some	All P is M. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	All M is P. Some M is S. ∴ Some S is P.	All P is M. Some M is S. 2 1 1 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
All M is P. All M is P. Some S is M. ∴ Some S is P. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land Mx)$ All M is P. $(\exists x) (Sx \land Mx)$	All P is M. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	All M is P. Some M is S. ∴ Some S is P.	All P is M. Some M is S. ∴ Some S is P.
All M is P. All M is P. Some S is M. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx ∧ Px)$	All P is M. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	All M is P. Some M is S. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx \land Px)$ ∴ $(∃x) (Sx \land Px)$ $(∀x) (Sx \land Px)$ $(∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) (∀x) $	All P is M. Some M is S. ∴ Some S is P.
All M is P.	All P is M. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	All M is P. Some M is S. ∴ Some S is P.	All P is M. Some M is S. 2 1 1 0 1 1 0 0 (∀x) (Px > Mx) $(∃x)$ (Mx ∧ Sx) $(∃x)$ (Mx $(∃x$
All M is P. Some S is M. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx ∧ Px)$ $(∃x) (Sx ∧ Px)$ All M is P. $(∃x) (Sx ∧ Px)$	All P is M. Some S is M. Some S is P. Some S is P. Some S is P. Some S is M. Some S is P. Some	All M is P. Some M is S. \square Some S is P. \square All M is P. \square Some S is P. \square All M is P. \square All M is P. \square Some S is P. \square All M is P.	All P is M. Some M is S. ∴ Some S is P.
All M is P. Some S is M. P M > P S ∧ M S ∧ P M S S M P M > P S N M S ∧ P M S N M S N M S N M S N M S N M S N M S N M S N M S N M S N M S N M S N M S N M S N M S N M S N M S N M S N M S N M N M	All P is M. Some S is M. Some S is P. Some	All M is P. Some M is S. \square Some S is P. \square All M is P. \square Some S is P. \square All M is P. \square Some S is P.	All P is M. Some M is S. $21 1 1 1 1 1 1 1 1 1 $
All M is P. Some S is M. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx \land Px)$ Form: I-AIO	All P is M. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	All M is P. Some M is S. \square Some S is P. \square All M is P. \square Some S is P. \square All M is P. \square All M is P. \square Some S is P. \square All M is P.	All P is M. Some M is S. ∴ Some S is P.
All M is P. Some S is M. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx \land Px)$ Form: I-AIO	All P is M. Some S is M. Some S is P. Some	All M is P. Some M is S. \square Some S is P. \square 1 1 1 1 1 1 1 0 1 1 0 0 0 0 0 0 0 0 0	All P is M. Some M is S. ∴ Some S is P.
All M is P. Some S is M. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx \land Px)$ All M is P. All M is P. $(∃x) (Sx \land Px)$ ∴ $(∃x) (Sx \land Px)$ All M is P. All M is P. $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $	All P is M. Some S is M. Some S is P. Some S is P. Some S is P. Some S is M. Some S is P. Some	All M is P. Some M is S. \square Some S is P. \square 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	All P is M. Some M is S. ∴ Some S is P. $ (∀x) (Px > Mx) (∃x) (∀x) (Sx \land Px) $ ∴ Some S is P. $ (∃x) (Mx \land Sx) (∃x) (Sx \land Px) $ $ (∃x) (Fx > Mx) (Fx > Mx)$
All M is P. Some S is M. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx \land Px)$ All M is P. Form: I-AIO $(∀x) (Mx > Px)$ $(∃x) (Sx \land Px)$ All M is P. $(∃x) (Sx \land Px)$ All M is P. $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $	All P is M. Some S is M. Some S is P. Some	All M is P. Some M is S. \square Some S is P. \square 1 1 1 1 1 1 1 0 0 0 1 0 0 0 0 0 0 0 0	All P is M. Some M is S. ∴ Some S is P. $ (∀x) (Px > Mx) (∃x) (∃x) (∃x) (Sx \land Px) $ $∴ Some S is P. (∃x) (Sx \land Px) (∃x) (∃x) (Sx \land Px) (Sx \land Px)$
All M is P. Some S is M. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx \land Px)$ All M is P. Form: I-AIO $(∀x) (Mx > Px)$ $(∃x) (Sx \land Bx)$	All P is M. $\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	All M is P. Some M is S. ∴ Some S is P.	All P is M. Some M is S. 2 1 1 0 1 1 0 0 1 1 0 0 0 1 0 0 0 0 0 0
All M is P. All M is P. Some S is M. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx ∧ Mx)$ $∴ (∃x) (Sx ∧ Fx)$ All M is P. All M is P. $(∃x) (Sx ∧ Fx)$ $($	All P is M. $\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	All M is P. Some M is S.	All P is M. Some M is S. 2 1 1 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
All M is P. Some S is M. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx \land Mx)$ All M is P. $(∃x) (Sx \land Bx)$ $(∃x) (Sx \land Bx$	All P is M. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	All M is P.	All P is M. Some M is S. 2 1 1 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0
All M is P. All M is P. Some S is M. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx ∧ Mx)$ All M is P. $(∃x) (Sx ∧ Fx)$	All P is M. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	All M is P. Some M is S. ∴ Some S is P. ∴ $(\exists x) (\exists x \land Px)$ ∴ $(\exists x) (\exists x \land Px)$ All M is P. All M is P. Some M is S. ∴ Some S is P. All M is P. $(\forall x) (\exists x) (\exists x \land Px)$ ∴ $(\exists x) (\exists x \land Px)$ $(\exists x \exists x \land Px)$ $(\exists x \exists x$	All P is M. $\begin{array}{ c c c c c c c c c }\hline &\exists &\exists &\exists &\forall &\exists $
All M is P. Some S is M. ∴ Some S is P. $(∀x) (Mx > Px)$ ∴ $(∃x) (Sx \land Mx)$ $∴ Some S is M. ∴ (∃x) (Sx \land Px)$ $(∃x) (∃x) (Sx \land Px)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃$	All P is M. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	All M is P. Some M is S. ∴ Some S is P. $(∀x) (Mx > Px) (∃x) (∀x) (Xx) (Xx) (Xx) (Xx) (Xx) (Xx) (Xx) (X$	All P is M. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$

Form: I-AOA	Form: II-AOA	Form: III-AOA	Form: IV-AOA
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	All P is M. Some S is not M. Some S is	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Form: I-AOE All M is P. All S is not M. $(\forall x) (Mx > Px)$ $(\exists x) (Sx \land ``Mx)$ $(\exists x) (Sx \land ``Mx)$ $(\exists x) (Sx \land ``Mx)$ $(\exists x) (Sx \land ``Px)$ $(\exists $	Form: II-AOE All P is M. Some S is not M. ∴ All S is not P. $(\forall x) (Px > Mx)$ ∴ $(\forall x) (Sx > ``Px)$ Form: II-AOE	Form: III-AOE All M is P. Some M is not S. ∴ All S is not P. $(\forall x) (Mx > Px)$ ∴ $(\forall x) (Sx > {}^{x}Px)$ $(\forall x) (Sx > {}^{x}Px)$ Form: III-AOE $\exists \exists \exists \exists \exists \forall \forall \exists \forall \exists \forall \exists \forall \exists \forall \forall \exists \forall \exists \forall \exists \forall \exists \forall \exists \forall \exists \exists$	Form: IV-AOE All P is M. Some M is not S. ∴ All S is not P. $(\forall x) (Px > Mx)$ ∴ $(\forall x) (Sx > ^{x}Px)$ $(\forall x) (Sx > ^{x}Px)$ Form: IV-AOE $\exists \exists \exists \exists \exists \forall \forall \exists \exists \forall \forall \exists \forall \forall \exists \forall \exists \forall \forall \exists \forall \exists \forall \forall \exists \forall \exists \forall \exists \exists$
Form: I-AOI $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: II-AOI All P is M. Some S is not M. $(\forall x) (Px > Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ Form: II-AOI $S M P P > M S \land M S \land P$ $P > M S \land M S \land M$ $P > P > M S \land M S \land P$ $P > M S \land M S \land M$ $P = P > M S \land M S \land M$ $P = P > M S \land M S \land M$ $P = P > M S \land M S \land M$ $P = P > M S \land M$ $P $	Form: III-AOI $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: IV-AOI $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Form: I-AOO $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Form: II-AOO (15, 19, 24) All P is M. Some S is not M. ∴ Some S is not P. $(\forall x) (Px > Mx)$ Form: II-AOO (15, 19, 24)	Form: III-AOO	Form: IV-AOO 3 3 3 7 3 5 S M P P > M M \(\chi^*S \) S \(\chi^*P \) All P is M. 1 1 1 1 1 0 0 Some M is not S. 2 1 1 0 1 0 1 Some S is not P. 3 1 0 1 0 0 0 4 1 0 0 1 0 0 1 (\forall x) (Px > Mx) 5 0 1 1 1 1 0

	Form: I-EAA			Form: II-EAA		Form: III-EAA		Form: IV-EAA
	A E E E	A A		3 3 3 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
All M is not P.	1 1 1 1 0	1 1	All P is not M.	1 1 1 1 0 1 1	All M is not P.	1 1 1 1 0 1 1	All P is not M.	1 1 1 1 0 1
All S is M.	2 1 1 0 1	1 0	All S is M.	2 1 1 0 1 1 0	_All M is S.	2 1 1 0 1 1 0	_All M is S.	2 1 1 0 1 1
∴ All S is P.	3 1 0 1 1	0 1	∴ All S is P.	3 1 0 1 1 0 1	∴ All S is P.	3 1 0 1 1 1 1	∴ All S is P.	3 1 0 1 1 1
	4 1 0 0 1	0 0		4 1 0 0 1 0 0	1	4 1 0 0 1 1 0		4 1 0 0 1 1
$(\forall x) (Mx > "Px)$	5 0 1 1 0	1 1	$(\forall x) (Px > Mx)$	5 0 1 1 0 1 1	$(\forall x) (Mx > "Px)$	5 0 1 1 0 0 1	$(\forall x) (Px > Mx)$	5 0 1 1 0 0
$(\forall x) (Sx > Mx)$	6 0 1 0 1	1 1	$(\forall x) (Sx > Mx)$	6 0 1 0 1 1 1	$(\forall x) (Mx > Sx)$	6 0 1 0 1 0 1	$(\forall x) (Mx > Sx)$	6 0 1 0 1 0
$\therefore \overline{(\forall x) (Sx > Px)}$	7 0 0 1 1	1 1	$(\forall x) (Sx > Px)$	7 0 0 1 1 1 1	$\therefore \overline{(\forall x) (Sx > Px)}$	7 0 0 1 1 1 1	$\therefore \overline{(\forall x) (Sx > Px)}$	7 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		8 0 0 0 1 1
	Form: I-EAE (15, 19	9 24)		Form: II-EAE (15, 19, 24)		Form: III-EAE		Form: IV-EAE
		∀		A A A A A A	4			
		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
All M is not P.		1 0	All P is not M.			1 1 1 1 0 1 0		1 1 1 1 0 1
	2 1 1 0 1	1 1	All S is M.		All M is S.	2 1 1 0 1 1 1	All M is S.	2 1 1 0 1 1
: All S is not P.		0 0	: All S is not P.		∴ All S is not P.			3 1 0 1 1 1
	4 1 0 0 1	0 1		4 1 0 0 1 0 1		4 1 0 0 1 1 1		4 1 0 0 1 1
$(\forall x) (Mx > "Px)$	5 0 1 1 0	1 1	$(\forall x) (Px > Mx)$	5 0 1 1 0 1 1	$(\forall x) (Mx > "Px)$	5 0 1 1 0 0 1	$(\forall x) (Px > Mx)$	5 0 1 1 0 0
	6 0 1 0 1	1 1	$(\forall x) (Sx > Mx)$	6 0 1 0 1 1 1	$(\forall x) (Mx > Sx)$	6 0 1 0 1 0 1	$(\forall x) (Mx > Sx)$	6 0 1 0 1 0
$(\forall x) (Sx > Px)$		1 1	$(\forall x) (Sx > Px)$		$(\forall x) (Sx > Px)$	7 0 0 1 1 1 1	$\therefore (\forall x) (Sx > "Px)$	
(, (, ,	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
					_			8 0 0 0 1 1
	Form: I-EAI			Form: II-EAI		Form: III-EAI		Form: IV-EAI
	A E E E	\forall \exists		3 3 3 A A 3		3 3 3 A A 3		A A A
		$S > M$ $S \wedge P$		S M P $P > M$ $S > M$ $S \wedge P$	1	S M P $M > "P$ $M > S$ $S \wedge P$		S M P P > "M M > S S
All M is not P.	1 1 1 1 0	1 1	All P is not M.	1 1 1 1 0 1 1	All M is not P.	1 1 1 1 0 1 1	All P is not M.	1 1 1 1 0 1
	2 1 1 0 1	1 0	All S is M.			2 1 1 0 1 1 0		2 1 1 0 1 1
∴ Some S is P.	3 1 0 1 1	0 1	∴ Some S is P.	3 1 0 1 1 0 1	∴ Some S is P.		. C C :- D	
	4 4 0 0 4	0 0			bome b is i.	3 1 0 1 1 1 1	∴ some s is P.	3 1 0 1 1 1
	4 1 0 0 1	0 0		4 1 0 0 1 0 0	Some 5 is 1.	3 1 0 1 1 1 1 4 1 0 0 1 1 0	Some S is P.	3 1 0 1 1 1 4 1 0 0 1 1
$(\forall x) (Mx > Px)$	5 0 1 1 0	1 0	$(\forall x) (Px > Mx)$	4 1 0 0 1 0 0		4 1 0 0 1 1 0 5 0 1 1 0 0		4 1 0 0 1 1 5 0 1 1 0 0
$(\forall x) (Sx > Mx)$	5 0 1 1 0 6 0 1 0 1		$(\forall x) (Sx > Mx)$	4 1 0 0 1 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0	$(\forall x) (Mx > \text{`Px})$ $(\forall x) (Mx > Sx)$	4 1 0 0 1 1 0 5 0 1 1 0 0 0 6 0 1 0 1 0 0	$(\forall x) (Px > \text{`Mx})$ $\underline{(\forall x) (Mx > Sx)}$	4 1 0 0 1 1 5 0 1 1 0 0 6 0 1 0 1 0
	5 0 1 1 0 6 0 1 0 1	1 0	` ' ' '	4 1 0 0 1 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0	(∀x)(Mx > "Px)	4 1 0 0 1 1 0 5 0 1 1 0 0	(∀x)(Px > ~Mx)	4 1 0 0 1 1 5 0 1 1 0 0
$(\forall x) (Sx > Mx)$	5 0 1 1 0 6 0 1 0 1	1 0 1 0	$(\forall x) (Sx > Mx)$	4 1 0 0 1 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0	$(\forall x) (Mx > \text{`Px})$ $(\forall x) (Mx > Sx)$	4 1 0 0 1 1 0 5 0 1 1 0 0 0 6 0 1 0 1 0 0	$(\forall x) (Px > \text{`Mx})$ $\underline{(\forall x) (Mx > Sx)}$	4 1 0 0 1 1 5 0 1 1 0 0 6 0 1 0 1 0
$(\forall x) (Sx > Mx)$	5 0 1 1 0 6 0 1 0 1 7 0 0 1 1	1 0 1 0 1 0	$(\forall x) (Sx > Mx)$	4 1 0 0 1 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 1 1 0	$(\forall x) (Mx > \text{`Px})$ $(\forall x) (Mx > Sx)$	4 1 0 0 1 1 0 5 0 1 1 0 0 0 6 0 1 0 1 0 0 7 0 0 1 1 1 0	$(\forall x) (Px > \text{`Mx})$ $\underline{(\forall x) (Mx > Sx)}$	4 1 0 0 1 1 5 0 1 1 0 0 6 0 1 0 1 0 7 0 0 1 1 1
$(\forall x) (Sx > Mx)$	5 0 1 1 0 6 0 1 0 1 7 0 0 1 1 8 0 0 0 1	1 0 1 0 1 0	$(\forall x) (Sx > Mx)$	4 1 0 0 1 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0	$(\forall x) (Mx > \text{`Px})$ $(\forall x) (Mx > Sx)$	4 1 0 0 1 1 0 5 0 1 1 0 0 0 6 0 1 0 1 0 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0	$(\forall x) (Px > \text{`Mx})$ $\underline{(\forall x) (Mx > Sx)}$	4 1 0 0 1 1 1 5 0 1 1 0 0 0 0 0 0 0 0 0 0
$(\forall x) (Sx > Mx)$ $(\exists x) (Sx \land Px)$	5 0 1 1 0 6 0 1 0 1 7 0 0 1 1 8 0 0 0 1 Form: I-EAO (24) 3 3 3 7 5 M P M>"P	1 0 1 0 1 0 1 0	$(\forall x) (Sx > Mx)$	4 1 0 0 1 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0 Form: II-EAO (24)	$(\forall x) (Mx > {}^{m}x)$ $(\forall x) (Mx > Sx)$ $(\forall x) (Sx \land Px)$	4 1 0 0 1 1 0 5 0 1 1 0 0 0 6 0 1 0 1 0 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0 Form: III-EAO (19, 24)	$(\forall x) (Px > \text{`Mx})$ $\underline{(\forall x) (Mx > Sx)}$	4 1 0 0 1 1 1 5 0 1 1 0 0 6 0 1 0 1 0 7 0 0 1 1 1 1 8 0 0 0 1 1 1 1 1 1 1 1 1 1
$(\forall x) (Sx > Mx)$ $(\exists x) (Sx \land Px)$ All M is not P.	5 0 1 1 0 6 0 1 0 1 7 0 0 1 1 8 0 0 0 1 Form: I-EAO (24) 3 3 3 7 5 M P M>"P 1 1 1 1 1 0	1 0 1 0 1 0 1 0	$(\forall x) (Sx > Mx)$	4 1 0 0 1 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0 Form: II-EAO (24)	$(\forall x) (Mx > {}^{m}x)$ $(\forall x) (Mx > Sx)$ $(\forall x) (Sx \land Px)$	4 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$(\forall x) (Px > \text{`Mx})$ $\underline{(\forall x) (Mx > Sx)}$	4 1 0 0 1 1 5 0 1 1 0 0 6 0 1 0 1 0 7 0 0 1 1 1 8 0 0 0 1 1 Form: IV-EAO (19, 24) 3 3 3 V V
$(\forall x) (Sx > Mx)$ $(\exists x) (Sx \land Px)$ All M is not P.	5 0 1 1 0 6 0 1 0 1 7 0 0 1 1 8 0 0 0 1 Form: I-EAO (24) 3 3 3 7 5 M P M>"P	1 0 1 0 1 0 1 0 1 0 ∀ ∃ S>M S∧~P	$(\forall x) (Sx > Mx)$ $(\exists x) (Sx \land Px)$	4 1 0 0 1 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0 Form: II-EAO (24) SM P P>M S>M S∧ P I 1 1 1 1 0 1 0 C 1 0 T 1 0 T 1 0 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$(\forall x) (Mx > {}^{m}x)$ $(\forall x) (Mx > Sx)$ $(\forall x) (Sx \land Px)$	4 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$(\forall x) (Px > ^m x)$ $(\forall x) (Mx > Sx)$ $\therefore (\exists x) (Sx \land Px)$	4
$(\forall x) (Sx > Mx)$ $(\exists x) (Sx \land Px)$ All M is not P.	5 0 1 1 0 1 7 0 1 1 7 0 0 1 1 1 8 0 0 0 1 1 1 1 8 0 0 0 0 1 1 1 1	1 0 1 0 1 0 1 0 1 0 ∀ ∃ S>M S∧~P 1 0	$(\forall x) (Sx > Mx)$ $(\exists x) (Sx \land Px)$ All P is not M.	4 1 0 0 1 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0 Form: II-EAO (24) SM P P>"M S>M S^"P 1 1 1 1 1 0 1 0 1 0 2 1 1 0 1 1	$(\forall x) (Mx > {}^{m}x)$ $(\forall x) (Mx > Sx)$ $(\forall x) (Sx \land Px)$ $\therefore (\exists x) (Sx \land Px)$ All M is not P. All M is S.	4 1 0 0 1 1 0 5 0 1 1 0 0 0 6 0 1 0 1 0 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0 Form: III-EAO (19, 24) S M P M>"P M>"B N S S A""P 1 1 1 1 1 0 1 0 1 0	$(\forall x) (Px > ^m x)$ $(\forall x) (Mx > Sx)$ $\therefore (\exists x) (Sx \land Px)$ All P is not M.	4
$(\forall x) (Sx > Mx)$ $(\exists x) (Sx \land Px)$ All M is not P. All S is M.	5 0 1 1 0 1 7 0 1 1 7 0 0 1 1 1 8 0 0 0 1 1 1 1 8 0 0 0 0 1 1 1 1	1 0 1 0 1 0 1 0 1 0	$(\forall x) (Sx > Mx)$ $\therefore (\exists x) (Sx \land Px)$ All P is not M. $All S is M.$	4 1 0 0 1 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0 Form: II-EAO (24) SM P P>M S>M S∧ P I 1 1 1 1 0 1 0 C 1 0 T 1 0 T 1 0 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$(\forall x) (Mx > {}^{m}x)$ $(\forall x) (Mx > Sx)$ $(\forall x) (Sx \land Px)$ $\therefore (\exists x) (Sx \land Px)$ All M is not P. All M is S.	4 1 0 0 1 1 0 5 0 1 1 0 0 0 6 0 1 0 1 0 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0 Form: III-EAO (19, 24) S M P M>"P M>"P M>S S S ∧ "P 1 1 1 1 1 0 1 0 1 0 2 1 1 0 1 1 1	$(\forall \mathbf{x}) (\mathbf{P}\mathbf{x} > ^{^{^{^{^{^{^{^{^{^{^{^{^{^{^{^{^{^{^$	4
$(\forall x) (Sx > Mx)$ $\therefore (\exists x) (Sx \land Px)$ All M is not P. $\underline{All \ S \ is \ M}.$ Some S is not P.	Form: I-EAO (24) Form: I-EAO (24) S M P M > "P 1 1 1 1 0 1 1 3 1 0 1 1	1 0 1 0 1 0 1 0 1 0	$(\forall x) (Sx > Mx)$ $\therefore (\exists x) (Sx \land Px)$ All P is not M. $All S is M.$	4 1 0 0 1 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0 8 0 0 0 1 1 0 8 0 0 0 1 1 0 9 0 0 1 0 0 0 0 1 0 0 1 1 1 1 1 0	$(\forall x) (Mx > {}^{m}Px)$ $(\forall x) (Mx > Sx)$ $\therefore (\exists x) (Sx \land Px)$ $All M \text{ is not } P.$ $All M \text{ is } S.$ $\therefore Some S \text{ is not } P.$	4 1 0 0 1 1 0 5 0 1 1 0 0 0 6 0 1 0 1 0 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0 Form: III-EAO (19, 24) 3 3 3 3 7 0 3 3 3 5 \(^{\mathref{P}}\) \(^{\mathref{P}}\) \(^{\mathref{N}}\) \($(\forall \mathbf{x}) (\mathbf{P}\mathbf{x} > ^{^{^{^{^{^{^{^{^{^{^{^{^{^{^{^{^{^{^$	4
$(\forall x) (Sx > Mx)$ $\therefore (\exists x) (Sx \land Px)$ All M is not P. $\underline{All \ S \ is \ M}.$ Some S is not P. $(\forall x) (Mx > Px)$	5 0 1 1 0 1 7 0 1 1 7 0 0 1 1 1 8 0 0 0 1 1 1 1 8 0 0 0 0 1 1 1 1	1 0 1 0 1 0 1 0 1 0 1 0 S > M S ∧ "P 1 0 1 1 0 0 0 1	$(\forall x) (Sx > Mx)$ $\therefore (\exists x) (Sx \land Px)$ All P is not M. $\underline{All \ S \ is \ M.}$ $\therefore Some \ S \ is \ not \ P.$	4 1 0 0 1 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0 8 0 0 0 1 1 0 8 0 0 0 1 1 0 9 0 0 1 0 0 0 0 1 0 0 1 1 1 1 1 0	$(\forall x) (Mx > {}^{m}Px)$ $(\forall x) (Mx > Sx)$ $\therefore (\exists x) (Sx \land Px)$ $All M \text{ is not } P.$ $All M \text{ is } S.$ $\therefore Some S \text{ is not } P.$	4 1 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 0 1 1 1 0 0 0 1 1 1 0 0 0 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 1 1 1 1 0 1 1 1 1 1 1 0 1 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 0 1 1 1 0 1 1	$(\forall x) (Px > ^mMx)$ $\underline{(\forall x) (Mx > Sx)}$ $\therefore (\exists x) (Sx \land Px)$ $All P \text{ is not } M.$ $\underline{All M \text{ is } S.}$ $\therefore Some S \text{ is not } P.$	Form: IV-EAO (19, 24) 3
$(\forall x) (Sx > Mx)$ $\therefore (\exists x) (Sx \land Px)$ All M is not P. $\underline{All \ S \ is \ M}.$ Some S is not P. $(\forall x) (Mx > Px)$	5 0 1 1 0 1 7 0 1 1 7 0 0 1 1 1 8 0 0 0 1 1 1 1 8 0 0 0 0 1 1 1 1	1 0 1 0 1 0 1 0 1 0 1 0 S > M S ∧ "P 1 0 1 1 0 0 0 1 1 0	$(\forall x) (Sx > Mx)$ $\therefore (\exists x) (Sx \land Px)$ All P is not M. $\underline{All \ S \ is \ M.}$ $\therefore Some \ S \ is \ not \ P.$ $(\forall x) (Px > ``Mx)$	4 1 0 0 1 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 1 1 0 8 0 0 0 1 1 0 8 0 0 0 1 1 0 8 0 0 0 1 1 0 9 0 0 0 1 0 1 0 1 0 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 0 1 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 1 0 1 0 1 0 1 0 1	$(\forall x) (Mx > {}^{m}Px)$ $(\forall x) (Mx > Sx)$ $(\exists x) (Sx \land Px)$ $All M \text{ is not } P.$ $All M \text{ is S}.$ $Some S \text{ is not } P.$ $(\forall x) (Mx > {}^{m}Px)$	4 1 0 0 1 1 0 1 1 0 0 0 0 1 1 0 0 0 0 0 1 1 0 1 0	$(\forall x) (Px > ^mMx)$ $\underline{(\forall x) (Mx > Sx)}$ $\therefore (\exists x) (Sx \land Px)$ $All P \text{ is not } M.$ $\underline{All M \text{ is } S.}$ $\therefore Some S \text{ is not } P.$ $(\forall x) (Px > ^mMx)$	Form: IV-EAO (19, 24) Form: IV-EAO (19, 24) S M P P>"M M>S S 1 1 1 1 0 1 1 3 1 0 1 1 3 1 0 1 1 4 1 0 0 1 5 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

	Form: I-EEA	Form: II-EEA	Form: III-EEA	Form: IV-EEA
	3 3 A A A	3 3 3 A A A	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.		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.		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	∴ 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
	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
$(\forall x) (Mx > "Px)$		$(\forall x) (Px > Mx)$ 5 0 1 1 0 1 1	$(\forall x) (Mx > Px)$ 5 0 1 1 0 1 1	$(\forall x) (Px > Mx) $
	6 0 1 0 1 1 1	$(\forall x) (Sx > Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 1 \qquad 1$	$(\forall x) (Mx > \text{``Sx'}) \boxed{6} \boxed{0} \boxed{1} \boxed{1} \boxed{1}$	$(\forall x) (Mx > \text{S}x) \qquad \boxed{6} \qquad \boxed{0} \qquad \boxed{1} \qquad \boxed{1} \qquad \boxed{1}$
$(\forall x) (Sx > Px)$	7 0 0 1 1 1 1	$\therefore (\forall x) (Sx > Px) 7 0 0 1 1 1 1$	$\therefore (\forall x) (Sx > Px) \boxed{7} \boxed{0} \boxed{0} \boxed{1} \boxed{1} \qquad \boxed{1}$	$\therefore (\forall x) (Sx > Px) 7 0 0 1 1 1 1$
	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
	Form: I-EEE	Form: II-EEE	Form: III-EEE	Form: IV-EEE
	A BEE E E E	A B E E E E	LOUW: LITERE	A BEE 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
All M is not P.		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
All S is not M.		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.		∴ 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
	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
$(\forall x) (Mx > "Px)$		$(\forall x) (Px > Mx) $	$(\forall x) (Mx > Px) $	$(\forall x) (Px > Mx) = 5 = 0 = 1 = 0 = 1 = 1$
$(\forall x) (Sx > Mx)$	6 0 1 0 1 1 1	$(\forall x) (Sx > Mx) $	$(\forall x) (Mx > "Sx) $	$(\forall x) (Mx > "Sx) $
$\therefore \overline{(\forall x) (Sx > "Px)}$	7 0 0 1 1 1 1	$\therefore \overline{(\forall x)(Sx > ^mPx)} 7 0 0 1 1 1 1$	$\therefore \overline{(\forall x)(Sx > ^nPx)} 7 0 0 1 1 1 1$	$\therefore \overline{(\forall x)(Sx > ^nPx)} 7 0 0 1 1 1 1$
	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
	Form: I-EEI	Form: II-EEI	Form: III-EEI	Form: IV-EEI
	B B B A A B	B B B B A B B B B B B B B B B B B B B B	3 3 3 A A 3	
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		
All M is not P.	∃ ∃ ∃ ∀ ∃ S M P M > "P S > "M S ∧ P 1 1 1 1 0 0 1	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \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$
	∃ ∃ ∃ ∀ ∃ S M P M > "P S > "M S ∧ P 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 1 1 1	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
All S is not M. ∴ Some S is P.	∃ ∃ ∃ ∀ ∃ S M P M > "P S > "M S ∧ P 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 1 1 1 4 1 0 0 1 1 0	All P is not M. All S is not M. ∴ Some S is P.	All M is not P. All M is not S. ∴ Some S is P.	All P is not M. All M is not S. ∴ Some S is P.
All S is not M. $\therefore \text{ Some S is P.}$ $(\forall x) (Mx > \text{"Px})$	∃ ∃ ∃ ∀ ∀ ∃ S M P M > "P S > "M S ∧ P 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 1 1 1 4 1 0 0 1 0 0 5 0 1 1 0 1 0	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $\begin{vmatrix} 3 & 3 & 3 & \forall & \forall & \exists \\ S & M & P & P > ``M & S > ``M & S \land P \\ 1 & 1 & 1 & 1 & 0 & 0 & 1 \\ 2 & 1 & 1 & 0 & 1 & 0 & 0 \\ 3 & 1 & 0 & 1 & 1 & 1 & 1 \\ 4 & 1 & 0 & 0 & 1 & 1 & 0 \\ (∀x) (Px > ``Mx) & 5 & 0 & 1 & 1 & 0 & 1 \end{vmatrix}$	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ^nPx)$ $(\forall x) (Mx = ^nPx)$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
All S is not M. ∴ Some S is P. $(\forall x) (Mx > \text{Px})$ $(\forall x) (Sx > \text{Mx})$	∃ ∃ ∃ ∀ ∀ ∃ S M P M > "P S > "M S ∧ P 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 1 1 1 4 1 0 0 1 0 0 5 0 1 1 0 0 0 6 0 1 0 1 1 0	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(\forall x) (Sx > ``Mx)$ $\begin{vmatrix} 3 & 3 & 3 & 0 & 0 & 0 & 1 \\ 3 & M & P & P > ``M & S > ``M & S \wedge P \\ 1 & 1 & 1 & 1 & 0 & 0 & 1 & 0 & 0 \\ 2 & 1 & 1 & 0 & 1 & 0 & 1 & 1 & 1 & 1 & 1$	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. $(\forall x) (Px > \text{``Mx})$ $(\forall x) (Mx > \text{``Sx})$ All B is not M. $(\forall x) (Mx > \text{``Sx})$ $(\forall x) (Mx > \text{``Sx})$ All B is not M. $(\forall x) (Px > \text{``Mx})$ $(\forall x) (Mx > \text{``Sx})$ All B is not M. $(x) (x) (x) (x) (x) (x) (x) (x)$ $(x) (x) (x) (x) (x) (x) (x) (x) (x) (x) $
All S is not M. ∴ Some S is P. $(\forall x) (Mx > \text{Px})$ $(\forall x) (Sx > \text{Mx})$	∃ ∃ ∃ ∀ ∀ ∃ S M P M > "P S > "M S ∧ P 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 1 1 1 4 1 0 0 1 1 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 1 1 0	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ^mMx)$ ∴ $(\exists x) (Sx \wedge Px)$ $(\exists x) (\exists x) (\exists x) (Sx \wedge Px)$ $(\exists x) (\exists x) (Sx \wedge Px)$ $(\exists x) (\exists x) (\exists x) (Sx \wedge Px)$ $(\exists x) (Sx \wedge Px)$	All M is not P. All M is not S.	All P is not M. All M is not S. ∴ Some S is P. $(∀x) (Px > ^mMx)$ $(∀x) (Sx ∧ Px)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $
All S is not M. ∴ Some S is P. $(\forall x) (Mx > \text{Px})$ $(\forall x) (Sx > \text{Mx})$	∃ ∃ ∃ ∀ ∀ ∃ S M P M > "P S > "M S ∧ P 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 1 1 1 4 1 0 0 1 0 1 5 0 1 1 0 1 0 6 0 1 0 1 1 0	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(\forall x) (Sx > ``Mx)$ $\begin{vmatrix} 3 & 3 & 3 & 0 & 0 & 0 & 1 \\ 3 & M & P & P > ``M & S > ``M & S \wedge P \\ 1 & 1 & 1 & 1 & 0 & 0 & 1 & 0 & 0 \\ 2 & 1 & 1 & 0 & 1 & 0 & 1 & 1 & 1 & 1 & 1$	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. $(\forall x) (Px > \text{``Mx})$ $(\forall x) (Mx > \text{``Sx})$ All B is not M. $(\forall x) (Mx > \text{``Sx})$ $(\forall x) (Mx > \text{``Sx})$ All B is not M. $(\forall x) (Px > \text{``Mx})$ $(\forall x) (Mx > \text{``Sx})$ All B is not M. $(x) (x) (x) (x) (x) (x) (x) (x)$ $(x) (x) (x) (x) (x) (x) (x) (x) (x) (x) $
All S is not M. ∴ Some S is P. $(\forall x) (Mx > \text{Px})$ $(\forall x) (Sx > \text{Mx})$	∃ ∃ ∃ ∀ ∀ ∃ S M P M > "P S > "M S ∧ P 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 1 1 1 4 1 0 0 1 1 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 1 1 0	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ^mMx)$ ∴ $(\exists x) (Sx \wedge Px)$ $(\exists x) (\exists x) (\exists x) (Sx \wedge Px)$ $(\exists x) (\exists x) (Sx \wedge Px)$ $(\exists x) (\exists x) (\exists x) (Sx \wedge Px)$ $(\exists x) (Sx \wedge Px)$	All M is not P. All M is not S.	All P is not M. All M is not S. ∴ Some S is P. $(∀x) (Px > ^mMx)$ $(∀x) (Sx ∧ Px)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $
All S is not M. ∴ Some S is P. $(\forall x) (Mx > \text{Px})$ $(\forall x) (Sx > \text{Mx})$	∃ ∃ ∃ ∀ ∀ ∃ S M P M > "P S > "M S ∧ P 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 1 1 1 4 1 0 0 1 1 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 1 0 8 0 0 0 1 1 0	All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx) (\forall x) (Sx \wedge Px)$ ∴ $(\exists x) (Sx \wedge Px)$ $(\exists x) (Sx \wedge Px$	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land $	All P is not M. All M is not S. ∴ Some S is P.
All S is not M. ∴ Some S is P. $(\forall x) (Mx > \text{Px})$ $(\forall x) (Sx > \text{Mx})$		All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx) \\ (\exists x) (\exists x) (Sx \land Px)$ $(\exists x) (S$	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ ∴ $(\exists x) (Sx \land Px)$ Form: III-EEO	All P is not M. All M is not S. ∴ Some S is P. $ (\forall x) (Px > \text{`Mx}) (Sx \land Px) $ ∴ $(\exists x) (Sx \land Px) $ $ (\exists x) (Sx \land Px) $
All S is not M. ∴ Some S is P. $(\forall x) (Mx > \text{Px})$ $(\forall x) (Sx > \text{Mx})$		All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx) (\forall x) (Sx > ``Px) (\exists x) (\exists x) (Sx \land Px)$ ∴ Gar) (Sx \(\text{Px} \) $(\forall x) (Sx > ``Mx) (\exists x) (Sx \land Px) (\exists $	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ $(\exists x) (\exists x) (Sx \land Px)$ $Form: III-EEO$ $\begin{vmatrix} \exists & \exists & \exists & \forall & \forall & \exists \\ S & M & P & M > ``P & M > ``S & S \land P \\ M & 1 & 1 & 1 & 0 & 0 & 1 \\ 0 & 0 & 1 & 1 & 0 & 0 \\ 0 & 1 & 1 & 1 & 1 & 1 & 1 \\ 0 & 0 & 1 & 1 & 1 & 1 \\ 0 & 0 & 1 & 1 & 1 & 1 \\ 0 & 0 & 1 & 1 & 1 & 1 \\ 0 & 0 & 1 & 1 & 0 & 1 \\ 0 & 0 & 1 & 1 & 1 & 0 \\ 0 & 1 & 0 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 & 1 \\ 0 & 0 & 1 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 & 0 \\ 0 & 0 & 1 & 1 & 1 & 1 \\ 0 & 0 & 0 & 0 & 1 & 1 \\ 0 & 0 & 0 & 0 & 1 & 1 & 1 \\ 0 & 0 & 0 & 0 & 1 & 1 & 1 \\ 0 & 0 & 0 & 0 & 1 & 1 & 1 \\ 0 & 0 & 0 & 0 & 1 & 1 & 1 \\ 0 & 0 & 0 & 0 & 1 & 1 & 1 \\ 0 & 0 & 0 & 0 & 0 & 1 & 1 \\ 0 & 0 & 0 & 0 & 0 & 1 & 1 \\ 0 & 0 & 0 & 0 & 0 & 0 & 1 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\$	All P is not M. All M is not S. ∴ Some S is P. $ (\forall x) (Px > \text{``Mx}) (Sx \land Px) $ ∴ $(\exists x) (Sx \land Px) $ ∴ Form: IV-EEO
All S is not M. ∴ Some S is P. $(\forall x) (Mx > {}^{n}Px)$ $(\forall x) (Sx > {}^{n}Mx)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. All S is not M.		All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All P is not M. All S is not M. $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $All P is not M. All S is not M. All S is not M. (\exists x) (\exists $	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ^{n}Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. $(\exists \exists \exists \exists \forall \forall \forall \exists \exists \land \land Px)$ $2 \exists 1 \exists 1 \exists 0 \exists 0 \exists 0 \exists 1 \exists 0 \exists 0 \exists 0 \exists 0$	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ^m x)$ $(∀x) (Mx > ^m x)$ $(∀x) (Sx \land Px)$ $∴ (∃x) (Sx ∩ Px)$ All P is not M. All M is not S. $2 1 1 0 1 0 0$ $3 1 0 1 1 1 1$ $4 1 0 0 1 1 0$ $5 0 1 1 0 1$ $6 0 1 0 1 0$ $7 0 0 1 1 1 0$ $8 0 0 0 1 1 0$ $8 0 0 0 1 1 0$ $8 0 0 0 1 1 0$ Form: IV-EEO All P is not M. All M is not S. 2 1 1 0 1 0 0 $1 1 1 1 0 0 0$ $1 1 1 1 0 0 0$ $1 1 1 1 0 0 0$ $1 1 1 1 0 0 0$ $1 1 1 1 0 0 0$ $1 1 1 1 0 0 0$ $1 1 1 1 0 0 0$ $1 1 1 1 0 0 0$ $1 1 1 1 0 0 0$ $1 1 1 1 0 0 0$
All S is not M. ∴ Some S is P. $(\forall x) (Mx > \text{`Px})$ $(\forall x) (Sx > \text{`Mx})$ ∴ $(\exists x) (Sx \land Px)$ All M is not P.		All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(∀x) (Sx \land Px)$ $(∀x) (Sx > ``Mx)$ $($	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ 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. $(\forall x) (Px > ^m x)$ $(∀x) (Mx > ^m x)$ $(∀x) (Sx \land Px)$ $(∃x) (Sx \land Px)$ All P is not M. $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $
_All S is not M: Some S is P. (∀x) (Mx > "Px) (∀x) (Sx > "Mx) .: (∃x) (Sx ∧ Px) All M is not PAll S is not M: Some S is not P.		All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All P is not M. All S is not M. $(\exists x) (Sx \land Px)$	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. $\frac{\exists \exists \exists \exists \forall \forall \forall \exists \exists \land \land P}{\exists \land \land P}, \ \exists \land \land P}{\exists \land \land \land P}, \ \exists \land \land P}, \ \exists \land \land Px, \ \exists \land P$	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(∀x) (Mx > ``Sx)$
All S is not M. ∴ Some S is P. $(\forall x) (Mx > {}^{n}Px)$ $(\forall x) (Sx > {}^{n}Mx)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. All S is not M. ∴ Some S is not P. $(\forall x) (Mx > {}^{n}Px)$		All P is not M. All S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ All P is not M. All S is not M. $(\forall x) (Px > ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land $	All M is not P. All M is not S. ∴ Some S is P. $(\forall x) (Mx > ``Px)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. $(\exists 1 1 1 1 1 0 0 0 1 1 0 0)$ $(\exists 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1$	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(∀x) (Mx > ``Sx)$
All S is not M. ∴ Some S is P. $(\forall x) (Mx > \text{`Px})$ $(\forall x) (Sx > \text{`Mx})$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. All S is not M. ∴ Some S is not P. $(\forall x) (Mx > \text{`Px})$ $(\forall x) (Mx > \text{`Px})$ $(\forall x) (Sx > \text{`Mx})$		All P is not M. All S is not M. $(\forall x) (Px > ^mMx)$ $(\exists x) (\exists x) (Sx \land Px)$ All P is not M. All S is not M. $(\forall x) (Px > ^mMx)$ $(\forall x) (Sx > ^mMx)$ All P is not M. All S is not M. $(\forall x) (Sx > ^mMx)$ $(\exists x) (Sx \land Px)$ All P is not M. All S is not M. All S is not M. $(\forall x) (Px > ^mMx)$ $(\exists x) (Sx \land Px)$ All P is not M. All S is not M. $(\forall x) (Px > ^mMx)$ $(\forall x) (Px > ^mMx)$ $(\exists x) (Sx \land Px)$ All D is not M. All S is not M. All S is not M. $(\forall x) (Px > ^mMx)$ $(\forall x) (Sx > ^mMx)$ All D is not M. All S is not M. All	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. $(\exists 1 1 1 1 1 0 0 0 1 1 0 0)$ $(\exists 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1$	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(∀x) (Mx > ``Sx)$
All S is not M. ∴ Some S is P. $(\forall x) (Mx > {}^{n}Px)$ $(\forall x) (Sx > {}^{n}Mx)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. All S is not M. ∴ Some S is not P. $(\forall x) (Mx > {}^{n}Px)$		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. $All M is not S.$ $(\forall x) (Mx > ``Px)$ $(∀x) (Mx > ``Px)$ $∴ (∃x) (Sx \land Px)$ All M is not P. $All M is not P.$ $(∀x) (Mx > ``Px)$ $(∀x) (Xx) (Xx)$ $(x) (Xx) (Xx) (Xx)$ $(x) (x) (x) (x) (x) (x)$ $(x) (x) (x) (x) (x) (x)$ $(x) (x) (x) (x) (x) (x) (x)$ $(x) (x) (x) (x) (x) (x) (x) (x) (x)$ $(x) (x) (x) (x) (x) (x) (x) (x) (x) (x) $	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 M is not S. $(\forall x) (Px > ``Mx)$ $(∀x) (Mx > ``Sx)$ $All P is not M. All M is not S. (∀x) (Fx > ``Mx) (∀x) $
All S is not M. ∴ Some S is P. $(\forall x) (Mx > ^{n}Px)$ $(\forall x) (Sx > ^{n}Mx)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. All S is not M. ∴ Some S is not P. $(\forall x) (Mx > ^{n}Px)$ $(\forall x) (Mx > ^{n}Px)$ $(\forall x) (Sx > ^{n}Mx)$		All P is not M. All S is not M. $(\forall x) (Px > ^mMx)$ $(\exists x) (\exists x) (Sx \land Px)$ All P is not M. All S is not M. $(\forall x) (Px > ^mMx)$ $(\forall x) (Sx > ^mMx)$ All P is not M. All S is not M. $(\forall x) (Sx > ^mMx)$ $(\exists x) (Sx \land Px)$ All P is not M. All S is not M. All S is not M. $(\forall x) (Px > ^mMx)$ $(\exists x) (Sx \land Px)$ All P is not M. All S is not M. $(\forall x) (Px > ^mMx)$ $(\forall x) (Px > ^mMx)$ $(\exists x) (Sx \land Px)$ All D is not M. All S is not M. All S is not M. $(\forall x) (Px > ^mMx)$ $(\forall x) (Sx > ^mMx)$ All D is not M. All S is not M. All	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. $(\exists 1 1 1 1 1 0 0 0 1 1 0 0)$ $(\exists 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1$	All P is not M. All M is not S. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(∀x) (Mx > ``Sx)$

	Form: I-EIA				Form: II-EIA			Form: III-EIA			Form: IV-EIA	
		Ε Ι	\forall		\forall	∃ ∀		B	∃ ∀			A
	S M P M>	~P S ∧ M	S > P		S M P P>"M	$S \wedge M S > P$		S M P M>	P M∧S S>P		S M P P>M MAS	S > P
All M is not P.	1 1 1 1 0	1	1	All P is not M.	1 1 1 1 0	1 1	All M is not P.	1 1 1 1 0		All P is not M.	1 1 1 1 0 1	1
Some S is M.	2 1 1 0 1	1	0	Some S is M.	2 1 1 0 1	1 0	Some M is S.	2 1 1 0 1	1 0	Some M is S.	2 1 1 0 1 1	0
∴ All S is P.	3 1 0 1 1	0	1	: All S is P.	3 1 0 1 1	0 1	∴ All S is P.	3 1 0 1 1	0 1	∴ All S is P.		1
	4 1 0 0 1	0	0		4 1 0 0 1	0 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	1	$(\forall x) (Px > Mx)$	5 0 1 1 0	0 1	$(\forall x) (Mx > "Px)$	5 0 1 1 0	0 1	$(\forall x) (Px > Mx)$	5 0 1 1 0 0	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	$(\exists x) (Mx \land Sx)$	6 0 1 0 1	0 1	$(\exists x) (Mx \land Sx)$	6 0 1 0 1 0	1
$(\forall x) (Sx > Px)$	7 0 0 1 1	0	1	$(\forall x) (Sx > Px)$	7 0 0 1 1	0 1		7 0 0 1 1	0 1	$(\forall x) (Sx > Px)$		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
							L					
	Form: I-EIE				Form: II-EIE			Form: III-EIE			Form: IV-EIE	
	∃ ∃ ∃ ∀	3	\forall		A	∃ ∀		3 3 3 A	3 A		B B B B B B B B B B B B B B B B B B B	\forall
	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 $P > M M \wedge S$	S > "P
All M is not P.	1 1 1 1 0	1	0	All P is not M.	1 1 1 1 0	1 0	All M is not P.	1 1 1 1 0	1 0	All P is not M.	1 1 1 1 0 1	0
Some S is M.	2 1 1 0 1	1	1	Some S is M.	2 1 1 0 1	1 1	Some M is S.	2 1 1 0 1	1 1	Some M is S.	2 1 1 0 1 1	1
∴ All S is not P.	3 1 0 1 1	0	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	∴ All S is not P.	3 1 0 1 1 0	0
	4 1 0 0 1	0	1		4 1 0 0 1	0 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 1 0	0 1	$(\forall x) (Mx > \mathbf{\tilde{P}}x)$	5 0 1 1 0	0 1	$(\forall x) (Px > Mx)$	5 0 1 1 0 0	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	$(\exists x) (Mx \land Sx)$	6 0 1 0 1	0 1	$(\exists x) (Mx \land Sx)$	6 0 1 0 1 0	1
$(\forall x) (Sx > Px)$	7 0 0 1 1	0	1	$\therefore (\forall x) (Sx > "Px)$	7 0 0 1 1	0 1	\therefore (\forall x)(Sx > "Px)	7 0 0 1 1	0 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
	Form: I-EII				Form: II-EII		_	Form: III-EII			Form: IV-EII	
	E E E		Э		A E E E	3 3		A E E E	3 3		E V E E E	3
	S M P M>	~P S ∧ M			3 3 3 ∀ S M P P>~M	$S \wedge M$ $S \wedge P$	[∃ ∃ ∃ ∀ S M P M > '	P M A S S A P		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$S \wedge P$
All M is not P.	∃ ∃ ∃ ∀ S M P M > 1 1 1 1 0	~P S ∧ M	S ∧ P 1	All P is not M.	∃ ∃ ∃ ∀ S M P P > "M 1 1 1 1 0	S ∧ M S ∧ P 1 1		A E E E	P M A S S A P	All P is not M.	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	S ∧ P 1
Some S is M.		"P S ∧ M 1 1	S ∧ P 1 0	Some S is M.		$ \begin{array}{c c} S \land M & S \land P \\ \hline 1 & 1 \\ 1 & 0 \end{array} $	Some M is S.	3 3 7 8 8 8 8 8 8 8 8 8	$ \begin{array}{c cccc} P & M \land S & S \land P \\ \hline & 1 & 1 \\ & 1 & 0 \\ \end{array} $	Some M is S.	∃ ∃ ∃ ∀ ∃ S M P P > "M M ∧ S 1 1 1 1 0 1 2 1 1 0 1 1	S ∧ P 1 0
	3 3 3	"P S ∧ M 1 1 0	S \(\text{P} \) 1 0 1	Some S is M.		$ \begin{array}{c cccc} S \wedge M & S \wedge P \\ \hline 1 & 1 \\ 1 & 0 \\ \hline 0 & 1 \\ \end{array} $	Some M is S.	3 3 3	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		∃ ∃ ∃ ∀ ∃ S M P P > "M M ∧ S 1 1 1 1 0 1 2 1 1 0 1 1 3 1 0 1 1 0	S \(\triangle P\) 1 0 1
Some S is M. ∴ Some S is P.		"P S \ M 1 1 0 0 0	S ∧ P 1 0 1 0	Some S is M. ∴ Some S is P.		$ \begin{array}{c cccc} S \wedge M & S \wedge P \\ \hline 1 & 1 \\ \hline 1 & 0 \\ \hline 0 & 1 \\ \hline 0 & 0 \\ \end{array} $	Some M is S. ∴ Some S is P.	3 3 3	P 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 ∧ S 1 1 1 1 0 1 2 1 1 0 1 1 3 1 0 1 1 0 4 1 0 0 1 0	S ∧ P 1 0 1 0
Some S is M. $\therefore \text{ Some S is P.}$ $(\forall x) (Mx > \text{"Px})$		*P S \(\) M 1 1 0 0 0 0	S ∧ P 1 0 1 0 0	Some S is M. Some S is P. $(\forall x) (Px > Mx)$		$\begin{array}{c cccc} S \land M & S \land P \\ \hline 1 & 1 \\ 1 & 0 \\ \hline 0 & 1 \\ \hline 0 & 0 \\ \hline 0 & 0 \\ \end{array}$	Some M is S. ∴ Some S is P. $(\forall x) (Mx > ^nPx)$	B B <td>P M ∧ S S ∧ P 1 1 1 0 0 1 0 0 0 0</td> <td>Some M is S. \therefore Some S is P. $(\forall x) (Px > \text{`Mx})$</td> <td>∃ ∃ ∃ ∀ ∃ S M P P > "M M ∧ S 1 1 1 1 0 1 2 1 1 0 1 1 3 1 0 1 1 0 4 1 0 0 1 0 5 0 1 1 0 0</td> <td>S ∧ P 1 0 1 0 0 0</td>	P M ∧ S S ∧ P 1 1 1 0 0 1 0 0 0 0	Some M is S. \therefore Some S is P. $(\forall x) (Px > \text{`Mx})$	∃ ∃ ∃ ∀ ∃ S M P P > "M M ∧ S 1 1 1 1 0 1 2 1 1 0 1 1 3 1 0 1 1 0 4 1 0 0 1 0 5 0 1 1 0 0	S ∧ P 1 0 1 0 0 0
Some S is M. ∴ Some S is P. $(\forall x) (Mx > ^{n}Px)$ $(\exists x) (Sx \wedge Mx)$		"P S \(\) M 1 1 0 0 0 0 0 0	S \(\times P \) 1 0 1 0 0 0 0 0	Some S is M. ∴ Some S is P. $(\forall x) (Px > ^Mx)$ $(\exists x) (Sx \wedge Mx)$		$\begin{array}{c cccc} S \land M & S \land P \\ \hline 1 & 1 \\ 1 & 0 \\ \hline 0 & 1 \\ \hline 0 & 0 \\ \hline 0 & 0 \\ \hline 0 & 0 \\ \end{array}$	Some M is S. Some S is P. $(\forall x) (Mx > ^px)$ $(\exists x) (Mx \wedge Sx)$	3 3 7 7 7 7 7 7 7 7	P M ∧ S S ∧ P 1 1 1 0 0 1 0 0 0 0 0 0	Some M is S. ∴ Some S is P. $(\forall x) (Px > ^nMx)$ $(\exists x) (Mx \land Sx)$		S ∧ P 1 0 1 0 0 0 0
Some S is M. $\therefore \text{ Some S is P.}$ $(\forall x) (Mx > \text{"Px})$		"P S \(\) M 1 1 0 0 0 0 0 0 0 0	S \(\times P \) 1 0 1 0 0 0 0 0 0	Some S is M. Some S is P. $(\forall x) (Px > Mx)$		$\begin{array}{c c} S \wedge M & S \wedge P \\ \hline 1 & 1 \\ 1 & 0 \\ \hline 0 & 1 \\ \hline 0 & 0 \\ \end{array}$	Some M is S. ∴ Some S is P. $(\forall x) (Mx > \text{"Px})$ $(\exists x) (Mx \land Sx)$	3 3 7 7 8 8 8 8 8 8 8 8	P M ∧ S S ∧ P 1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0	Some M is S. \therefore Some S is P. $(\forall x) (Px > \text{`Mx})$		S \(\text{P} \) 1 0 1 0 0 0 0 0
Some S is M. ∴ Some S is P. $(\forall x) (Mx > ^{n}Px)$ $(\exists x) (Sx \wedge Mx)$		"P S \ M 1 1 0 0 0 0 0 0 0 0	S \(\times P \) 1 0 1 0 0 0 0 0	Some S is M. ∴ Some S is P. $(\forall x) (Px > ^Mx)$ $(\exists x) (Sx \wedge Mx)$		$\begin{array}{c cccc} S \land M & S \land P \\ \hline 1 & 1 \\ 1 & 0 \\ \hline 0 & 1 \\ \hline 0 & 0 \\ \hline 0 & 0 \\ \hline 0 & 0 \\ \end{array}$	Some M is S. Some S is P. $(\forall x) (Mx > ^px)$ $(\exists x) (Mx \wedge Sx)$	3 3 7 7 7 7 7 7 7 7	P M ∧ S S ∧ P 1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0	Some M is S. ∴ Some S is P. $(\forall x) (Px > ^nMx)$ $(\exists x) (Mx \land Sx)$		S ∧ P 1 0 1 0 0 0 0
Some S is M. ∴ Some S is P. $(\forall x) (Mx > ^{n}Px)$ $(\exists x) (Sx \wedge Mx)$		"P S \(\times M \) 1 1 0 0 0 0 0 0	S \(\times P \) 1 0 1 0 0 0 0 0 0	Some S is M. ∴ Some S is P. $(\forall x) (Px > ^Mx)$ $(\exists x) (Sx \wedge Mx)$		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is S. Some S is P. $(\forall x) (Mx > ^px)$ $(\exists x) (Mx \wedge Sx)$	3 3 7 8 8 8 8 8 8 8 8 8	P M ∧ S S ∧ P 1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Some M is S. ∴ Some S is P. $(\forall x) (Px > ^nMx)$ $(\exists x) (Mx \land Sx)$	∃ ∃ ∃ ∀ ∃ S M P P > "M M ∧ S 1 1 1 1 0 1 2 1 1 0 1 1 3 1 0 1 1 0 4 1 0 0 1 0 5 0 1 1 0 0 6 0 1 0 1 0 7 0 0 1 1 0 8 0 0 0 1 0	S \(\text{P} \) 1 0 1 0 0 0 0 0
Some S is M. ∴ Some S is P. $(\forall x) (Mx > ^{n}Px)$ $(\exists x) (Sx \wedge Mx)$	3 3 7 8 M P M N 1 1 1 1 0 0 1 1 1 1	"P S \(\text{M} \) 1 1 0 0 0 0 0 0 0 0 0 0 0	S \(P \) 1 0 1 0 0 0 0 0 0 0	Some S is M. ∴ Some S is P. $(\forall x) (Px > ^Mx)$ $(\exists x) (Sx \wedge Mx)$		S ∧ M S ∧ P 1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 19, 24)	Some M is S. Some S is P. $(\forall x) (Mx > ^px)$ $(\exists x) (Mx \wedge Sx)$	3 3 7 8 8 8 8 8 9 8 8 9 8 8	P M ∧ S S ∧ P 1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 15, 19, 24)	Some M is S. ∴ Some S is P. $(\forall x) (Px > ^nMx)$ $(\exists x) (Mx \land Sx)$	∃ ∃ ∃ ∀ ∃ S M P P > M M ∧ S 1 1 1 1 0 1 2 1 1 0 1 1 3 1 0 1 1 0 4 1 0 0 1 0 5 0 1 1 0 0 6 0 1 0 1 0 7 0 0 1 1 0 8 0 0 0 1 0 Form: IV-EIO (15, 19, 24)	S \(\times P\) 1 0 1 0 0 0 0 0 0 0 0
Some S is M. ∴ Some S is P. $(\forall x) (Mx > ^{n}Px)$ $(\exists x) (Sx \wedge Mx)$		"P S∧M 1 1 0 0 0 0 0 0 0 0 5,19,24)	S \(P \) 1 0 1 0 0 0 0 0 0 0 0 0 0 0	Some S is M. ∴ Some S is P. $(\forall x) (Px > ^Mx)$ $(\exists x) (Sx \wedge Mx)$	H	S∧M S∧P 1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 19,24) ∃	Some M is S. Some S is P. $(\forall x) (Mx > ^px)$ $(\exists x) (Mx \wedge Sx)$	Here Here Here Here Here	P M ∧ S S ∧ P 1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 15, 19, 24) ∃	Some M is S. ∴ Some S is P. $(\forall x) (Px > ^nMx)$ $(\exists x) (Mx \land Sx)$	∃ ∃ ∃ ∀ ∃	S \(\text{P} \) 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Some S is M. ∴ Some S is P. $(\forall x) (Mx > ^{n}Px)$ $(\exists x) (Sx \land Mx)$ ∴ $(\exists x) (Sx \land Px)$		"P S∧M 1 1 0 0 0 0 0 0 0 0 0 "P S∧M "P S∧M	S ∧ P 1 0 1 0 0 0 0 0 0 0 0 S ∧ "P	Some S is M. ∴ Some S is P. $(\forall x) (Px > ^Mx)$ $(\exists x) (Sx \land Mx)$ $∴ (\exists x) (Sx \land Px)$	Here Here	S ∧ M	Some M is S. ∴ Some S is P. $(\forall x) (Mx > ^{n}Px)$ $(\exists x) (Mx \wedge Sx)$ $∴ (\exists x) (Sx \wedge Px)$	3 3 7 7 8 8 9 8 9 8 9 8 9 1 1 1 1 1 1 1 1 1	P M ∧ S S ∧ P 1 1 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 15, 19, 24 ∃ P M ∧ S S ∧ P	Some M is S. ∴ Some S is P. $(\forall x) (Px > ^nMx)$ $(\exists x) (Mx \land Sx)$ $∴ (\exists x) (Sx \land Px)$	∃ ∃ ∃ ∀ ∃	S \(\times P \) 1
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	Form: I-EOA				Form: II-EOA	A			Form: III-EOA			Form: IV-EOA		
	A E E E	3	\forall		B B B	А Э	\forall		A E E E	3 A		3 3 3 A	3	\forall
	S M P M > "P	S ^ M	S > P		S M P P	> "M S ^ "M	I 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
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
$(\forall x) (Mx > \mathbf{P}x)$	5 0 1 1 0	0	1	$(\forall x) (Px > Mx)$	5 0 1 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	$(\exists x) (Mx \land "Sx)$	6 0 1 0 1	1 1	$(\exists x) (Mx \land "Sx)$	6 0 1 0 1	1	1
	7 0 0 1 1	0	1	$(\forall x) (Sx > Px)$	7 0 0 1	1 0	1	$(\forall x) (Sx > Px)$	7 0 0 1 1	0 1	$(\forall x) (Sx > Px)$	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
	Form: I-EOE				Form: II-EOE	E			Form: III-EOE			Form: IV-EOE		
	\forall]]	\forall		T 3 3 3 T	A 3	\forall		\forall	3 A		A = E E	3	\forall
	S M P M > "P	S ∧ ~M	S > "P		S M P P	> "M S ^ "M	I 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	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.		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.		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 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	$(\exists x) (Mx \land "Sx)$	6 0 1 0 1	1 1	$(\exists x) (Mx \land "Sx)$	6 0 1 0 1	1	1
	7 0 0 1 1	0	1	$\therefore \overline{(\forall x) (Sx > "Px)}$	7 0 0 1	1 0	1	$(\forall x) (Sx > Px)$	7 0 0 1 1	0 1	$\therefore \overline{(\forall x) (Sx > "Px)}$	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
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	Form: I-EOI				Form: II-EOI				Form: III-EOI			Form: IV-EOI		
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		∃ S∧~M	$S \wedge P$		3 3 3 S M P P				\forall	∃ ∃ M ∧ "S S ∧ P				$\frac{\exists}{S \wedge P}$
All M is not P.	∃ ∃ ∃ ∀ S M P M > "P	_	S ∧ P 1	All P is not M.	3 3 3 S M P P	\forall \exists		All M is not P.		M ∧ "S S ∧ P 0 1	All P is not M.	∃ ∃ ∃ ∀ S M P P > "M 1 1 1 1 0		S ∧ P 1
Some S is not M.		S ∧ ~M	S \(\text{P} \) 1 0	Some S is not M.	S M P P 1 1 1 1 1 2 1 1 0	∀ ∃ >~M S∧~M	I S∧P	Some M is not S.		M∧~S S∧P	Some M is not S.		M ∧ "S	S ∧ P 1 0
		S ^ *M	S \(\text{P} \) 1 0 1		S M P P 1 1 1 1 1 2 1 1 0 3 1 0 1	∀ ∃ > "M S ∧ "M 0 0	S ∧ P 1 0 1			M ∧ "S S ∧ P 0 1 0 0 0 0 0 1 0 0 1 0 0 1 0 0 0 0 0		3 3 3 V S M P P > "M 1 1 1 1 0 2 1 1 0 1	M ∧ ~S 0	S ∧ P 1
Some S is not M. ∴ Some S is P.		S ∧ "M 0 0 1 1	S \(\text{P} \) 1 0 1 0	Some S is not M. ∴ Some S is P.	3 3 3 S M P P 1 1 1 1 1 2 1 1 0 0 3 1 0 1 4 1 0 0	∀ ∃ > M S ∧ M 0 0 1 0 1 1 1 1	$ \begin{array}{c c} S \wedge P \\ \hline 1 \\ 0 \\ \hline 1 \\ 0 \end{array} $	Some M is not S. ∴ Some S is P.	H	M ∧ "S S ∧ P 0 1 0 0 0 1 0 0 0 1 0 0	Some M is not S. ∴ Some S is P.		M ^ "S 0 0	S \(\text{P} \) 1 0 1 0
Some S is not M. \therefore Some S is P. $(\forall x) (Mx > Px)$		S ^ "M 0 0 1	S \(\times P \) 1 0 1 0 0 0 0	Some S is not M. \therefore Some S is P. $(\forall x) (Px > ^mMx)$	S M P P 1 1 1 1 1 2 1 1 0 3 1 0 1	∀ ∃ > "M S ∧ "N 0 0 1 0 1 1	S ∧ P 1 0 1	Some M is not S. \therefore Some S is P. $(\forall x) (Mx > ^nPx)$		M ∧ "S S ∧ P 0 1 0 0 0 0 0 1 0 0 1 0 0 1 0 0 0 0 0	Some M is not S. \therefore Some S is P. $(\forall x) (Px > Mx)$	H	M ^ "S 0 0 0 0 0	S ∧ P 1 0 1
Some S is not M. ∴ Some S is P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Sx \wedge ^nMx)$		S \ "M	S \(\text{P} \) 1 0 1 0 0 0 0 0	Some S is not M. ∴ Some S is P. $(\forall x) (Px > ^mMx)$ $(\exists x) (Sx \wedge ^mMx)$	3 3 3 1 1 1 1 1 1 1	∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 1 1 0 0 1 0 1 0	S \(\text{P} \) 1 0 1 0 1 0 0 0 0 0	Some M is not S. \therefore Some S is P. $(\forall x) (Mx > \text{`P}x)$ $(\exists x) (Mx \land \text{`S}x)$	Here Here	$\begin{array}{c cccc} M \wedge \begin{tabular}{cccc} M \wedge \begin{tabular}{cccc} S & S \wedge P \\ \hline 0 & 1 \\ 0 & 0 \\ \hline 0 & 1 \\ 0 & 0 \\ 1 & 0 \\ 1 & 0 \\ \end{array}$	Some M is not S. \therefore Some S is P. $(\forall x) (Px > ^mMx)$ $(\exists x) (Mx \wedge ^mSx)$		M ^ "S O O O O O O O O O O O O O O O O O O	S \(\times P \) 1 0 1 0 0 0 0
Some S is not M. \therefore Some S is P. $(\forall x) (Mx > Px)$		S \(^M \) 0 0 1 1 0 0 0 0 0 0 0 0 0	S \(\triangle P\) 1 0 1 0 0 0 0 0 0	Some S is not M. \therefore Some S is P. $(\forall x) (Px > ^mMx)$	3 3 3 1 1 1 1 1 1 1	∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 0 0 1 0 1 0 1 0 1 0 1 0	I S∧P 1 0 1 0 0 0 0 0	Some M is not S. \therefore Some S is P. $(\forall x) (Mx > ^nPx)$	Here Here	$\begin{array}{c cccc} M \wedge \begin{tabular}{cccc} M \wedge \begin{tabular}{cccc} S \wedge P \\ \hline 0 & 1 \\ 0 & 0 \\ \hline 0 & 1 \\ 0 & 0 \\ 1 & 0 \\ 1 & 0 \\ 0 & 0 \\ \end{array}$	Some M is not S. \therefore Some S is P. $(\forall x) (Px > Mx)$		M \(\cdot \cdot S \) 0 0 0 0 1 1 0	S \(\times P \) 1 0 1 0 0 0 0 0 0 0
Some S is not M. \therefore Some S is P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Sx \wedge ^nMx)$		S \ "M	S \(\text{P} \) 1 0 1 0 0 0 0 0	Some S is not M. ∴ Some S is P. $(\forall x) (Px > ^mMx)$ $(\exists x) (Sx \wedge ^mMx)$	3 3 3 1 1 1 1 1 1 1	∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 1 1 0 0 1 0 1 0	S \(\text{P} \) 1 0 1 0 1 0 0 0 0 0	Some M is not S. \therefore Some S is P. $(\forall x) (Mx > \text{`P}x)$ $(\exists x) (Mx \land \text{`S}x)$	Here Here	$\begin{array}{c cccc} M \wedge \begin{tabular}{cccc} M \wedge \begin{tabular}{cccc} S & S \wedge P \\ \hline 0 & 1 \\ 0 & 0 \\ \hline 0 & 1 \\ 0 & 0 \\ 1 & 0 \\ 1 & 0 \\ \end{array}$	Some M is not S. \therefore Some S is P. $(\forall x) (Px > ^mMx)$ $(\exists x) (Mx \wedge ^mSx)$		M ^ "S O O O O O O O O O O O O O O O O O O	S \(\times P \) 1 0 1 0 0 0 0
Some S is not M. ∴ Some S is P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Sx \wedge ^nMx)$		S \(^M \) 0 0 1 1 0 0 0 0 0 0 0 0 0	S \(\triangle P\) 1 0 1 0 0 0 0 0 0	Some S is not M. ∴ Some S is P. $(\forall x) (Px > ^mMx)$ $(\exists x) (Sx \wedge ^mMx)$	3 3 3 1 1 1 1 1 1 1	∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 0 0 1 0 1 0 1 0 1 0 1 0	I S∧P 1 0 1 0 0 0 0 0	Some M is not S. \therefore Some S is P. $(\forall x) (Mx > \text{`P}x)$ $(\exists x) (Mx \land \text{`S}x)$	Here Here	$\begin{array}{c cccc} M \wedge \begin{tabular}{cccc} M \wedge \begin{tabular}{cccc} S \wedge P \\ \hline 0 & 1 \\ 0 & 0 \\ \hline 0 & 1 \\ 0 & 0 \\ 1 & 0 \\ 1 & 0 \\ 0 & 0 \\ \end{array}$	Some M is not S. \therefore Some S is P. $(\forall x) (Px > ^mMx)$ $(\exists x) (Mx \wedge ^mSx)$		M \(\cdot \cdot S \) 0 0 0 0 1 1 0	S \(\times P \) 1 0 1 0 0 0 0 0 0 0
Some S is not M. ∴ Some S is P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Sx \wedge ^nMx)$		S \(^M \) 0 0 1 1 0 0 0 0 0 0 0 0 0	S \(\triangle P\) 1 0 1 0 0 0 0 0 0	Some S is not M. ∴ Some S is P. $(\forall x) (Px > ^mMx)$ $(\exists x) (Sx \wedge ^mMx)$	3 3 3 1 1 1 1 1 1 1	∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 0 0 1 0 1 0 1 0 1 0 1 0 1 0	I S∧P 1 0 1 0 0 0 0 0	Some M is not S. \therefore Some S is P. $(\forall x) (Mx > \text{`P}x)$ $(\exists x) (Mx \land \text{`S}x)$	Here Here	$\begin{array}{c cccc} M \wedge \begin{tabular}{cccc} M \wedge \begin{tabular}{cccc} S \wedge P \\ \hline 0 & 1 \\ 0 & 0 \\ \hline 0 & 1 \\ 0 & 0 \\ 1 & 0 \\ 1 & 0 \\ 0 & 0 \\ \end{array}$	Some M is not S. \therefore Some S is P. $(\forall x) (Px > ^mMx)$ $(\exists x) (Mx \wedge ^mSx)$		M \(\cdot \cdot S \) 0 0 0 0 1 1 0	S \(\times P \) 1 0 1 0 0 0 0 0 0 0
Some S is not M. ∴ Some S is P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Sx \wedge ^nMx)$		S \(^M \) 0 0 1 1 0 0 0 0 0 0 0 0 0	S \(\triangle P\) 1 0 1 0 0 0 0 0 0	Some S is not M. ∴ Some S is P. $(\forall x) (Px > ^mMx)$ $(\exists x) (Sx \wedge ^mMx)$	3 3 3 1 1 1 1 1 1 1	∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 0 0 1 0 1 0 1 0 1 0 1 0 1 0	I S∧P 1 0 1 0 0 0 0 0	Some M is not S. \therefore Some S is P. $(\forall x) (Mx > \text{`P}x)$ $(\exists x) (Mx \land \text{`S}x)$	Here Here	$\begin{array}{c cccc} M \wedge \begin{tabular}{cccc} M \wedge \begin{tabular}{cccc} S \wedge P \\ \hline 0 & 1 \\ 0 & 0 \\ \hline 0 & 1 \\ 0 & 0 \\ 1 & 0 \\ 1 & 0 \\ 0 & 0 \\ \end{array}$	Some M is not S. \therefore Some S is P. $(\forall x) (Px > ^mMx)$ $(\exists x) (Mx \wedge ^mSx)$		M ∧ "S 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0	S \(\times P \) 1 0 1 0 0 0 0 0 0 0
Some S is not M. ∴ Some S is P. $(\forall x) (Mx > ^{n}Px)$ $(\exists x) (Sx \wedge ^{n}Mx)$ $∴ (\exists x) (Sx \wedge Px)$		S \(^ M \) 0 0 1 1 0 0 0 0 1	S \(\times P \) 1 0 1 0 0 0 0 0 0 0 0 0 0 0	Some S is not M. ∴ Some S is P. $(\forall x) (Px > \text{`Mx})$ $\underline{(\exists x) (Sx \land \text{`Mx})}$ $\underline{(\exists x) (Sx \land Px)}$	3 3 3 1 1 1 1 1 1 1	∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 0 0 1 0 1 0 1 0 1 0 1 0	S ∧ P	Some M is not S. ∴ Some S is P. $(\forall x) (Mx > ^nPx)$ $\underline{(\exists x) (Mx \wedge ^nSx)}$ $ (\exists x) (Sx \wedge Px)$	Here Here	M ∧ "S S ∧ P 0 1 0 0 0 1 0 0 1 0 1 0 0 0 0 0	Some M is not S. ∴ Some S is P. $(\forall x) (Px > ^mMx)$ $\underline{(\exists x) (Mx \wedge ^mSx)}$ $ (\exists x) (Sx \wedge Px)$		M ∧ "S 0 0 0 0 1 1 0 0 3 1 1 0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0	S \(\times P\) 1 0 1 0 0 0 0 0 0 0
Some S is not M. \therefore Some S is P. $(\forall x) (Mx > \text{`Px})$ $\underline{(\exists x) (Sx \land \text{`Mx})}$ $\overline{(\exists x) (Sx \land Px)}$ All M is not P.		S \ "M	S \(\times P \) 1 0 1 0 0 0 0 0 0 0 0 0 0 0	Some S is not M. ∴ Some S is P. $(\forall x) (Px > ^mMx)$ $(\exists x) (Sx \wedge ^mMx)$	3 3 3 1 1 1 1 1 1 1	∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 0 0 1 0 1 0 1 0 1 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0	I S∧P 1 0 1 0 0 0 0 0 0	Some M is not S. Some S is P. $(\forall x) (Mx > ^nPx)$ $\underline{(\exists x) (Mx \wedge ^nSx)}$ $\overline{(\exists x) (Sx \wedge Px)}$ All M is not P.	Here Here	M∧ "S S ∧ P 0 1 0 0 0 1 0 0 1 0 0 0 1 0 0 0 0 0	Some M is not S. \therefore Some S is P. $(\forall x) (Px > ^m X)$ $\underline{(\exists x) (Mx \wedge ^s X)}$ $\underline{(\exists x) (Sx \wedge Px)}$ All P is not M.		M ∧ "S 0 0 0 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0	S \(\times P \) 1
Some S is not M. \therefore Some S is P. $(\forall x) (Mx > ^nPx)$ $\underline{(\exists x) (Sx \wedge ^nMx)}$ $\overline{(\exists x) (Sx \wedge Px)}$ All M is not P. Some S is not M.		S ∧ "M	S ∧ P 1 0 1 0 0 0 0 0 0 0 0 0 1 S ∧ "P 0	Some S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(\exists x) (Sx \land ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is not M. Some S is not M.	3 3 3 1 1 1 1 1 1 1	∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 0 0 1 0 1 0 1 0 1 0 1 0 0 0 1 0 0 0 1 0 0 0	S ∧ P	Some M is not S. ∴ Some S is P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Mx \wedge ^nSx)$ $∴ (\exists x) (Sx \wedge Px)$ All M is not P. Some M is not S.	Here Here	M ∧ "S S ∧ P 0 1 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0	Some M is not S. ∴ Some S is P. $(\forall x) (Px > ^mx)$ $(\exists x) (Mx \wedge ^sx)$ ∴ $(\exists x) (Sx \wedge Px)$ All P is not M. Some M is not S.		M ∧ "S 0 0 0 0 1 1 0 0 0 1 M ∧ "S	S \(\times P \) 1 0 1 0 0 0 0 0 0 0 0 S \(\times P \) \(\times P \)
Some S is not M. \therefore Some S is P. $(\forall x) (Mx > ^nPx)$ $\underline{(\exists x) (Sx \wedge ^nMx)}$ $\overline{(\exists x) (Sx \wedge Px)}$ All M is not P. Some S is not M.		S ∧ "M	S ∧ P 1 0 1 0 0 0 0 0 0 0 0 S ∧ "P	Some S is not M. \therefore Some S is P. $(\forall x) (Px > \text{`Mx})$ $\underline{(\exists x) (Sx \land \text{`Mx})}$ $\overline{(\exists x) (Sx \land Px)}$ All P is not M.		∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 0 0 1 0 1 0 1 0 1 0 1 0 0 0 ∀ ∃ 0 0 0 0	S ∧ P	Some M is not S. Some S is P. $(\forall x) (Mx > ^nPx)$ $\underline{(\exists x) (Mx \wedge ^nSx)}$ $\overline{(\exists x) (Sx \wedge Px)}$ All M is not P.		M ∧ "S S ∧ P 0 1 0 0 0 1 0 0 1 0 0 0 0 0 0 0 0 0	Some M is not S. \therefore Some S is P. $(\forall x) (Px > ^m X)$ $\underline{(\exists x) (Mx \wedge ^s X)}$ $\underline{(\exists x) (Sx \wedge Px)}$ All P is not M.		M ∧ "S 0 0 0 0 1 1 0 0 0 1 M ∧ "S 0 0 0 0 0 0 0 0 0 0	S \(\times P \) 1 0 1 0 0 0 0 0 0 0 0 0 S \(\times \)^*P 0
Some S is not M. \therefore Some S is P. $(\forall x) (Mx > ^nPx)$ $\underline{(\exists x) (Sx \wedge ^nMx)}$ $\overline{(\exists x) (Sx \wedge Px)}$ All M is not P. Some S is not M.		S ∧ "M	S ∧ P 1 0 1 0 0 0 0 0 0 0 0 0 1 S ∧ "P 0	Some S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(\exists x) (Sx \land ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is not M. Some S is not M.		∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 0 0 1 0 1 0 1 0 1 0 0 0 0 0 1 0	S ∧ P	Some M is not S. ∴ Some S is P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Mx \wedge ^nSx)$ $∴ (\exists x) (Sx \wedge Px)$ All M is not P. Some M is not S.		M ∧ "S S ∧ P 0 1 0 0 0 1 0 0 1 0 0 0 0 0 0 0 M ∧ "S S ∧ "P 0 0 0 1	Some M is not S. ∴ Some S is P. $(\forall x) (Px > ^mx)$ $(\exists x) (Mx \wedge ^sx)$ ∴ $(\exists x) (Sx \wedge Px)$ All P is not M. Some M is not S.		M ∧ "S 0 0 0 0 1 1 0 0 0 1 M ∧ "S 0 0 0 0 0 0 0 0 0 0	S \(\times P\) 1 0 1 0 0 0 0 0 0 S \(\times ^n P\) 0 1
Some S is not M. \therefore Some S is P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Sx \wedge ^nMx)$ $\therefore (\exists x) (Sx \wedge Px)$ All M is not P. Some S is not M. \therefore Some S is not P.		S ∧ "M	S ∧ P 1 0 1 0 0 0 0 0 0 0 0 0 1 S ∧ "P 0 0	Some S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(\exists x) (Sx \land ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is not M. Some S is not M. ∴ Some S is not P.		∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 0 0 1 0 1 0 1 0 1 0 0 0 0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 1	S ∧ P	Some M is not S. ∴ Some S is P. $(\forall x) (Mx > ^{n}Px)$ $(\exists x) (Mx \wedge ^{n}Sx)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. Some M is not S. ∴ Some S is not P. $(\forall x) (Mx > ^{n}Px)$		M ∧ "S S ∧ P 0 1 0 0 0 1 0 0 1 0 0 0 0 0 0 0 M ∧ "S S ∧ "P 0 0 0 1 0 0 0 0 0 0	Some M is not S. ∴ Some S is P. $(\forall x) (Px > ^mx)$ $(\exists x) (Mx \wedge ^sx)$ ∴ $(\exists x) (Sx \wedge Px)$ All P is not M. Some M is not S.		M ∧ "S 0 0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0	S \(\times P \) 1
Some S is not M. ∴ Some S is P. $(\forall x) (Mx > {}^{*}Px)$ $(\exists x) (Sx \wedge {}^{*}Mx)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. Some S is not M. ∴ Some S is not P. $(\forall x) (Mx > {}^{*}Px)$ $(\exists x) (Sx \wedge {}^{*}Mx)$		S ∧ "M	S ∧ P 1 0 1 0 0 0 0 0 0 0 0 1 S ∧ "P 0 1 0 1	Some S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(\exists x) (Sx \land ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is not M. Some S is not M. ∴ Some S is not P.		∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 0 0 1 0 1 0 1 0 0 0 0 0 1 0 1 0 1 0 1 0 1 1 1 1	S ∧ P	Some M is not S. Some S is P. $(\forall x) (Mx > ^nPx)$ $\underline{(\exists x) (Mx \wedge ^nSx)}$ $\overline{(\exists x) (Sx \wedge Px)}$ All M is not P. Some M is not S. Some S is not P.		M ∧ "S S ∧ P 0 1 0 0 0 1 0 0 1 0 0 0 0 0 0 0 M ∧ "S S ∧ "P 0 0 0 1 0 0 0 1 0 0 0 1	Some M is not S. ∴ Some S is P. $(\forall x) (Px > ^m X)$ $(\exists x) (Mx \wedge ^s X)$ ∴ $(\exists x) (Sx \wedge Px)$ All P is not M. Some M is not S. ∴ Some S is not P.		M ∧ "S 0 0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0	S \(\times P \) 1
Some S is not M. ∴ Some S is P. $(\forall x) (Mx > {}^{*}Px)$ $(\exists x) (Sx \wedge {}^{*}Mx)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. Some S is not M. ∴ Some S is not P. $(\forall x) (Mx > {}^{*}Px)$ $(\exists x) (Sx \wedge {}^{*}Mx)$		S ∧ "M	S ∧ P 1 0 0 0 0 0 0 0 0 0 1 S ∧ "P 0 1 0 0 0	Some S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(\exists x) (Sx \land ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is not M. Some S is not M. ∴ Some S is not P. $(\forall x) (Px > ``Mx)$		∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 0 0 1 0 1 0 1 0 0 0 1 0 0 0 1 0 1 1 0 0 1 1 0 0	S \land P	Some M is not S. ∴ Some S is P. $(\forall x) (Mx > ^{n}Px)$ $(\exists x) (Mx \wedge ^{n}Sx)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. Some M is not S. ∴ Some S is not P. $(\forall x) (Mx > ^{n}Px)$		M ∧ "S S ∧ P 0 1 0 0 0 1 0 0 1 0 0 0 0 0 0 0 M ∧ "S S ∧ "P 0 0 0 1 0 0 0 1 1 0	Some M is not S. ∴ Some S is P. $(\forall x) (Px > ^m X)$ $(\exists x) (Mx \wedge ^s X)$ ∴ $(\exists x) (Sx \wedge Px)$ All P is not M. Some M is not S. ∴ Some S is not P. $(\forall x) (Px > ^m X)$		M ∧ "S 0 0 0 1 1 0 0 0 1 M ∧ "S 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0	S \(\times P \) 1
Some S is not M. ∴ Some S is P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Sx \wedge ^nMx)$ ∴ $(\exists x) (Sx \wedge Px)$ All M is not P. Some S is not M. ∴ Some S is not P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Sx \wedge ^nMx)$		S ∧ "M	S ∧ P 1 0 0 0 0 0 0 0 0 0 1 S ∧ "P 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	Some S is not M. ∴ Some S is P. $(\forall x) (Px > ``Mx)$ $(\exists x) (Sx \land ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ All P is not M. Some S is not M. ∴ Some S is not P. $(\forall x) (Px > ``Mx)$ $(\exists x) (Sx \land ``Mx)$		∀ ∃ > "M S ∧ "N 0 0 1 0 1 1 0 0 1 0 1 0 1 0 0 0 1 0 1 0 1 1 0 0 1 1 0 0 1 0 1 0 1 0	S \land P	Some M is not S. ∴ Some S is P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Mx \land ^nSx)$ ∴ $(\exists x) (Sx \land Px)$ All M is not P. Some M is not S. ∴ Some S is not P. $(\forall x) (Mx > ^nPx)$ $(\exists x) (Mx \land ^nSx)$		M ∧ "S S ∧ P 0 1 0 0 0 0 1 0 1 0 0 0 0 0 0 0 0 1 0 0 0 1 0 0 1 0 1 0 1 0	Some M is not S. \therefore Some S is P. $(\forall x) (Px > ^m Mx)$ $(\exists x) (Mx \wedge ^n Sx)$ $\therefore (\exists x) (Sx \wedge Px)$ All P is not M. Some M is not S. \therefore Some S is not P. $(\forall x) (Px > ^m Mx)$ $(\exists x) (Mx \wedge ^n Sx)$		M ∧ "S 0 0 0 1 1 0 0 0 1 1 0 0 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0	S \(\times P \) 1

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. 1 1 1 1 1 1 1	Some P is M. 1 1 1 1 1 1 1	Some M is P. 1 1 1 1 1 1 1	Some P is M. 1 1 1 1 1 1 1
All S is M. 2 1 1 0 0 1 0	All S is M. 2 1 1 0 0 1 0	All M is S. 2 1 1 0 0 1 0	All M is S. 2 1 1 0 0 1 0
∴ All S is P. 3 1 0 1 0 0 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$: All S is P. 3 1 0 1 0 1 1	∴ All S is P. 3 1 0 1 0 1 1
All 5 IS F. 3 1 0 1 0 0 1 0 0 0 0	All 5 is F. 3 1 0 1 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 1 0 0 0 1 0	4 1 0 0 0 1 0 1 0 1 0 1 0 1 1 0 1 1 0 1 1 0 1 1 0 1 1 1 0 1 1 1 0 1
	$(\exists x) (Px \land Mx) \qquad 5 \qquad 0 \qquad 1 \qquad 1 \qquad 1 \qquad 1$		
$\frac{(\forall x) (Sx > Mx)}{(Yx)(Sx > Rx)} = \begin{pmatrix} 6 & 0 & 1 & 0 & 0 & 1 & 1 \\ 0 & 0 & 0 & 0 & 1 & 1 & 1 \end{pmatrix}$	$\frac{(\forall x) (Sx > Mx)}{(Vx) (Sx > Rx)} = \begin{pmatrix} 6 & 0 & 1 & 0 & 0 & 1 & 1 \\ \hline 0 & 0 & 0 & 0 & 1 & 1 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 1 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 1 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 1 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 1 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 1 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 1 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 1 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 &$	$ \frac{(\forall x) (Mx > Sx)}{(Mx > Sx)} \begin{array}{c ccccc} 6 & 0 & 1 & 0 & 0 & 1 \\ \hline \end{array} $	$\frac{(\forall x) (Mx > Sx)}{(Mx > Sx)} \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\therefore (\forall x) (Sx > Px) 7 0 0 1 0 1 1$	$\therefore (\forall x) (Sx > Px) \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\therefore (\forall x) (Sx > Px) \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\therefore (\forall x) (Sx > Px) 7 0 0 1 0 1 1$
8 0 0 0 0 1 1	8 0 0 0 0 1 1	8 0 0 0 0 1 1	8 0 0 0 0 1 1
Form: I-IAE	Form: II-IAE	Form: III-IAE	Form: IV-IAE
		A A E E E E E	A A E E E E
S M P M \wedge P S > M S > "P	$f S M P P \land M S > M S > {}^{*}P$	S M P $M \land P$ $M > S$ $S > "P$	S M P $P \land M$ M > S $S \Rightarrow T$
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
All S is not P. 3 1 0 1 0 0	∴ All S is not P. 3 1 0 1 0 0 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
4 1 0 0 0 1	4 1 0 0 0 1	4 1 0 0 0 1 1	4 1 0 0 0 1 1
$(\exists x) (Mx \land Px) $ 5 0 1 1 1 1 1	$(\exists x) (Px \land Mx) 5 0 1 1 1 1$	$(\exists x) (Mx \land Px) $ 5 0 1 1 1 0 1	$(\exists x) (Px \land Mx) $ 5 0 1 1 1 0 1
$(\forall x) (Sx > Mx)$ 6 0 1 0 0 1 1	$(\forall x) (Sx > Mx)$ 6 0 1 0 0 1 1	$(\forall x) (Mx > Sx) = 6 = 0 = 1 = 1 = 0 = 1$	$(\forall x) (Mx > Sx) $
$\frac{\langle \forall x \rangle \langle Sx \rangle x_1 \rangle}{\langle \forall x \rangle \langle Sx \rangle x_2 \rangle} \begin{vmatrix} 0 & 0 & 1 & 0 & 1 & 1 \\ \hline 0 & 0 & 1 & 0 & 1 & 1 \\ \hline 0 & 0 & 1 & 0 & 1 & 1 \\ \hline 0 & 0 & 1 & 0 & 1 & 1 \\ \hline 0 & 0 & 0 & 1 & 0 & 1 & 1 \\ \hline 0 & 0 & 0 & 0 & 1 & 0 & 1 \\ \hline 0 & 0 & 0 & 0 & 1 & 0 & 1 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 1 & 0 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 1 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 1 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 & 0 \\ \hline 0 & 0 & 0 & 0 & 0 \\ $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\therefore (\forall x) (Sx > ^nPx) 7 0 0 1 0 1 1$	$\therefore (\forall x) (Sx > ^nPx) 7 0 0 1 0 1 1$
8 0 0 0 1 1	8 0 0 0 1 1	8 0 0 0 1 1	8 0 0 0 1 1
Form: I-IAI	Form: II-IAI	Form: III-IAI (15, 19, 24)	Form: IV-IAI (15, 19, 24)
B B B B B B B B B B B B B B B B B B B	3 3 3 4 3		3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
$egin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	S M P $M \wedge P$ $M > S$ $S \wedge P$	$egin{array}{ c c c c c c c c c c c c c c c c c c c$
			Some P is M.
Some M is P. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
Some M is P. $\frac{S M}{1} P M \land P S > M S \land P}{All \ S \ is \ M}$. ∴ Some S is P. $\frac{S M}{1} 0 0 1 0$ $\frac{1}{1} 0$		Some M is P. $\frac{S M P M \land P M > S S \land P}{All \ M \ is \ S.}$ ∴ Some S is P. $\frac{S M P M \land P M > S S \land P}{4 1 0 0 1 0}$	Some P is M. All M is S. ∴ Some S is P. S M P P ∧ M M > S S ∧ P M M S S S ∧ P M M M S S S N M M M S S S N M M M S S S N M M M S S S ∧ P M M M S S S N M M M S S S N M M M S S S N M M M S S S N M M M S S S N M M M S S S N M M M S S S N M M M M
Some M is P.	Some P is M. All S is M. Some S is P. $(\exists x) (Px \land Mx)$ S M P P $\land M$ S $\gt M$ S $\land P$ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	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 M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Px \land Mx)$
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. $(\exists x) (Px \land Mx) (\forall x) (Sx \gt Mx)$ $($	Some M is P.	Some P is M. All M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > Sx)$ $(\exists x) (Mx > Sx)$
Some M is P. $(∃x)$ (Mx ∧ Px) $(∃x)$ (Mx ∧ Px) $(∃x)$ ($∃x$) ($ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P.	Some P is M. All M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land P$
Some M is P. $(∃x)$ Some S is P. $(∃x)$ M $(∀x)$ Some S is P. $(∃x)$ Some S is P. $($	Some P is M. All S is M. Some S is P. $(\exists x) (Px \land Mx) (\forall x) (Sx \gt Mx)$ $($	Some M is P.	Some P is M. All M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Mx > Sx)$ $(\exists x) (Mx > Sx)$
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. $(∃x)(Px \land Mx)$ $(∀x)(Sx > Mx)$ ∴ $(∃x)(Sx \land Px)$	Some M is P. $\frac{S M}{All M \text{ is S}}$. $\frac{All M \text{ is S}}{S}$. $\frac{S N}{S}$ $\frac{N}{S}$	Some P is M. All M is S. ∴ Some S is P. $(∃x) (Px \land Mx)$ $(∀x) (Mx > Sx)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (Sx \land Px)$ $(∃x) (Sx \land Px)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) $
Some M is P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land$	Some P is M. All S is M. Some S is P. $ (\exists x) (Px \land Mx) \\ (\exists x) (Sx \land Px) \\ (\exists x) (Sx \land Px) $ Form: II-IAO	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. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$
Some M is P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land P$	Some P is M. All S is M. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \gt Px)$ ∴ $(\exists x) (Sx \land Px)$ Form: II-IAO	Some M is P. $\frac{S M P M \land P M > S S \land P}{All \ M \text{ is S.}}$ ∴ Some S is P. $\frac{2 1 1 0 0 1 0}{4 1 0 0 1 0}$ $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land$	Some P is M. All M is S. ∴ Some S is P. $(∃x) (Px \land Mx)$ $(∀x) (Mx > Sx)$ ∴ $(∃x) (Sx \land Px)$ $(∃x) (Fx \land Mx)$ $(∃x) (Fx \land Fx)$ $(∃x) (Fx \land$
Some M is P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (\exists x)$	Some P is M. All S is M. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\forall x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Form: II-IAO	Some M is P. All M is S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land$	Some P is M. All M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land P$
Some M is P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) ($	Some P is M. All S is M. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Some P is M. By M. P. P \times M. S \times M. S \times P. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Some M is P. All M is S. ∴ Some S is P. $(\exists x) (\exists x)$	Some P is M. All M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ Some P is M. Some P is M. S
Some M is P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land P$	Some P is M. All S is M. ∴ Some S is P. $(\exists x)(Px \land Mx)$ $(\exists x)(Sx \land Px)$ ∴ $(\exists x)(Sx \land Px)$ Some P is M. All S is M. 2 1 1 1 0 0 1 1 0 0 1 0 0 1 0 0 0 0 0 0	Some M is P. All M is S. ∴ Some S is P.	Some P is M. All M is S. ∴ Some S is P.
Some M is P. All S is M. ∴ Some S is P. $(∃x)(Mx \land Px)$ ∴ $(∃x)(Sx \land Px)$ Some M is P. All S is M. Some S is not P. Some M is P. All S is M. Some M is P. All S is M. Some M is P. All S is M. Some S is not P. Some M is P. All S is M. Some S is not P. Some M is P. All S is M. Some S is not P. Some M is P. All S is M. Some S is Not P. Some S is	Some P is M. All S is M. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x)$	Some M is P. All M is S. ∴ Some S is P. ∴ Some M is P. ∴ Some M is P. ∴ Some M is P. ∴ Some S is not P. ∴ Some S is not P. ∴ Some S is not P. ∴ Some M is P. ∴ Some S is not P. ∴ Some S is not P. ∴ Some S is not P. ∴ Some M is P. ∴ Some S is not P. ∴ Some S is	Some P is M. All M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Some P is M. All M is S. ∴ Some S is not P. $(\exists x) (Bx) (Bx) (Bx) (Bx) (Bx) (Bx) (Bx) ($
Some M is P. $All S is M$. ∴ Some S is P. $All S is M$. ∴ Some S is P. $All S is M$. ∴ Some S is P. $All S is M$. ∴ Some S is P. $All S is M$. ∴ $All S is M$	Some P is M. All S is M. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x)$	Some M is P. All M is S. ∴ Some S is P. ∴ Some M is P. ∴ Some M is P. ∴ Some M is P. ∴ Some S is not P. ∴ Some S is not P. ∴ Some S is not P. ∴ Some M is P. ∴ Some S is not P. ∴ Some M is P. ∴ Some S is not P. ∴ Some S	Some P is M. All M is S. ∴ Some S is P. ∴ Some S is P. ∴ $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴
Some M is P. $All S is M$. $Black S is M$. $All S is M$. $Black S is M$.	Some P is M. All S is M. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x)$	Some M is P.	Some P is M. All M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Some P is M. All M is S. ∴ Some S is not P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Some P is M. All M is S. ∴ Some S is not P. $(\exists x) (Px \land Mx)$ $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land$
Some M is P. $All S is M$. ∴ Some S is P. $All S is M$. ∴ Some S is P. $All S is M$. ∴ Some S is P. $All S is M$. ∴ $All S is M$. ∴ $All S is M$. ∴ $All S is M$. Some S is not P. $All S is M$. Some S is not P. $All S is M$.	Some P is M. All S is M. ∴ Some S is P. (∃x)(Px ∧ Mx) ∴ (∃x)(Sx > Px) The standard stand	Some M is P. All M is S. Some S is P. (∃x) (Mx ∧ Px) (∃x) (Xx ∧ Px) (Some P is M. All M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Some P is M. All M is S. ∴ Some S is not P. ∴ $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land P$
Some M is P. $All S is M$. ∴ Some S is P. $All S is M$. ∴ Some S is P. $All S is M$. ∴ $All S is M$. $All S is M$. Some S is not P. $All S is M$. Some S is not P. $All S is M$. Some S is not P. $All S is M$. Some S is not P. $All S is M$. $All S is$	Some P is M. All S is M. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x)$	Some M is P.	Some P is M. All M is S. ∴ Some S is P. ∴ Some S is P. ∴ $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ Some P is M. ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx $

	Form: I-IEA	Form: II-IEA		Form: III-IEA	Form: IV-IEA
	A E E E E		A A	A A A	
	S M P M A P S > "M S > 1	S M P P M S	S > "M S > P	S M P $M \land P$ $M > "S$ $S > P$	S M P $P \land M$ $M > "S$ $S > P$
Some M is P.	1 1 1 1 1 0 1	Some P is M. 1 1 1 1 1	0 1	Some M is P. 1 1 1 1 0 1	Some P is M. 1 1 1 1 0 1
	2 1 1 0 0 0 0	All S is not M. 2 1 1 0 0	0 0	All M is not S. 2 1 1 0 0 0 0	All 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 0	1 1	∴ 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 1 0	4 1 0 0 0	1 0	4 1 0 0 0 1 0	4 1 0 0 0 1 0
	5 0 1 1 1 1 1	$(\exists x) (Px \land Mx) \boxed{5} \boxed{0} \boxed{1} \boxed{1}$	1 1	$(\exists x) (Mx \land Px) \boxed{5} \boxed{0} \boxed{1} \boxed{1} \boxed{1} \boxed{1}$	$(\exists x) (Px \land Mx)$ 5 0 1 1 1 1
$(\forall x) (Sx > Mx)$	6 0 1 0 0 1 1	$(\forall x) (Sx > Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 0$	1 1	$(\forall x) (Mx > Sx) \qquad 6 \qquad 0 \qquad 1 \qquad 1$	$(\forall x) (Mx > "Sx) \qquad 6 \qquad 0 \qquad 1 \qquad 1$
$\therefore (\forall x) (Sx > Px)$	7 0 0 1 0 1 1	$\therefore (\forall x) (Sx > Px) \boxed{7} \boxed{0} \boxed{0} \boxed{1} \boxed{0}$	1 1	$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > Px) 7 0 0 1 0 1 1$
	8 0 0 0 0 1 1	8 0 0 0 0	1 1	8 0 0 0 0 1 1	8 0 0 0 0 1 1
	Form: I-IEE	Form: II-IEE		Form: III-IEE	Form: IV-IEE
	A		\forall		3 3 A A
	S M P M \wedge P S > "M S > "	S M P P M S	S > "M S > "P	S M P $M \land P$ $M > "S$ $S > "P$	S M P $P \land M$ $M > "S$ $S > "P$
Some M is P.		Some P is M. 1 1 1 1 1	0 0	Some M is P. 1 1 1 1 0 0	Some P is M. 1 1 1 1 0 0
	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.		∴ 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
	4 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
$(\exists x) (Mx \land Px)$		$(\exists x) (Px \land Mx) $	1 1	$(\exists x) (Mx \land Px) 5 0 1 1 1 1$	$(\exists x) (Px \land Mx) $
$\frac{(\forall x) (Sx > \text{M}x)}{}$	6 0 1 0 0 1 1	$(\forall x) (Sx > Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 0$	1 1	$(\forall x) (Mx > "Sx)$ 6 0 1 0 0 1 1	$(\forall x) (Mx > x) = 6 0 1 0 1 1$
$\therefore (\forall x) (Sx > "Px)$	7 0 0 1 0 1 1	$\therefore (\forall x) (Sx > ^mPx) 7 0 0 1 0$	1 1	$\therefore (\forall x) (Sx > ^nPx) \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\therefore (\forall x) (Sx > ^{n}Px) 7 0 0 1 0 1 1$
	8 0 0 0 0 1 1	8 0 0 0 0	1 1	8 0 0 0 0 1 1	8 0 0 0 0 1 1
	Form: I-IEI	Form: II-IEI		Form: III-IEI	Form: IV-IEI
	3 3 3 3 A 3	3 3 3 3	A 3		E V E E E E
	∃ ∃ ∃ ∃ ∃ S M P M ∧ P S > "M S ∧ 3	∃ ∃ ∃ ∃ S M P P∧M S	S > "M S ∧ P	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is P.		Some P is M. 1 1 1 1 1 1	S > "M S \ P 0 1		
All S is not M.		Some P is M. 1 1 1 1 1 1 All S is not M. 2 1 1 0 0	$\begin{array}{c c} S > \text{"M} & S \wedge P \\ \hline 0 & 1 \\ 0 & 0 \end{array}$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	
All S is not M.		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} S > \text{"M} & S \wedge P \\ \hline 0 & 1 \\ 0 & 0 \\ 1 & 1 \end{array}$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
All S is not M. ∴ Some S is P.		Some P is M. All S is not M. ∴ Some S is P.	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P. All M is not S. ∴ Some S is P.	Some P is M. All M is not S. ∴ Some S is P.
All S is not M. ∴ Some S is P. $(\exists x) (Mx \land Px)$		Some P is M. All S is not M. Some S is P. $3 \ 3 \ 3 \ 3 \ 3 \ 3 \ 3 \ 3 \ 3 \ 3 $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P. All M is not S. ∴ Some S is P.	Some P is M. All M is not S. ∴ Some S is P.
All S is not M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > ``Mx)$	∃ ∃ ∃ ∀ ∃ S M P M ∧ P S > "M S ∧ . 1 1 1 1 0 1 2 1 1 0 0 0 0 3 1 0 1 0 1 1 4 1 0 0 0 1 0 5 0 1 1 1 1 0 6 0 1 0 0 1 0	Some P is M. All S is not M. Some S is P. $3 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 $	$\begin{array}{c c} S > {}^{m}M & S \wedge P \\ \hline 0 & 1 \\ 0 & 0 \\ \hline 1 & 1 \\ 1 & 0 \\ 1 & 0 \\ 1 & 0 \\ \end{array}$	Some M is P. All M is not S. ∴ Some S is P.	Some P is M. All M is not S. ∴ Some S is P. $(∃x)(Px \land Mx)(∀x)(Mx \gt "Sx)$
All S is not M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > \text{`Mx})$	∃ ∃ ∃ ∃ ∀ ∃ S M P M ∧ P S > "M S ∧ . 1 1 1 1 0 1 2 1 1 0 0 0 0 3 1 0 1 0 1 1 4 1 0 0 0 1 0 5 0 1 1 1 0 6 0 1 0 0 1 0 7 0 0 1 0 1 0	Some P is M. All S is not M. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P. All M is not S. ∴ Some S is P.	Some P is M. All M is not S. ∴ Some S is P. $(∃x)(Px ∧ Mx)(∀x)(Mx > "Sx) $ $(∃x)(Sx ∧ Px) $
All S is not M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > ``Mx)$	∃ ∃ ∃ ∀ ∃ S M P M ∧ P S > "M S ∧ . 1 1 1 1 0 1 2 1 1 0 0 0 0 3 1 0 1 0 1 1 4 1 0 0 0 1 0 5 0 1 1 1 1 0 6 0 1 0 0 1 0	Some P is M. All S is not M. Some S is P. $3 1 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 $	$\begin{array}{c c} S > {}^{m}M & S \wedge P \\ \hline 0 & 1 \\ 0 & 0 \\ \hline 1 & 1 \\ 1 & 0 \\ 1 & 0 \\ 1 & 0 \\ \end{array}$	Some M is P. All M is not S. ∴ Some S is P.	Some P is M. All M is not S. ∴ Some S is P. $(∃x)(Px \land Mx)(∀x)(Mx \gt "Sx)$
All S is not M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > ``Mx)$	∃ ∃ ∃ ∃ ∀ ∃ S M P M ∧ P S > "M S ∧ . 1 1 1 1 0 1 2 1 1 0 0 0 0 3 1 0 1 0 1 1 4 1 0 0 0 1 0 5 0 1 1 1 0 6 0 1 0 0 1 0 7 0 0 1 0 1 0	Some P is M. All S is not M. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P. All M is not S. ∴ Some S is P.	Some P is M. All M is not S. ∴ Some S is P. $(∃x)(Px ∧ Mx)(∀x)(Mx > "Sx) $ $(∃x)(Sx ∧ Px) $
All S is not M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > ``Mx)$	∃ ∃ ∃ ∃ ∀ ∃ S M P M ∧ P S > "M S ∧ . 1 1 1 1 0 1 2 1 1 0 0 0 0 3 1 0 1 0 1 1 4 1 0 0 1 0 0 5 0 1 1 1 0 0 6 0 1 0 0 1 0 7 0 0 1 0 1 0 8 0 0 0 0 1 0	Some P is M. All S is not M. ∴ Some S is P. $(∃x)(Px \land Mx)$ $(∀x)(Sx \gt ^Mx)$ ∴ $(∃x)(Sx \land Px)$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P. All M is not 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 not S. ∴ Some S is P. ∴ $(\exists x) (Px \land Mx)$ $(\exists x) (Yx \land Px)$
All S is not M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > ^mx)$ ∴ $(\exists x) (Sx \land Px)$	∃ ∃ ∃ ∃ ∀ ∃ ∀ ∃ S M P M ∧ P S > "M S ∧ . 1	Some P is M. All S is not M. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ Form: II-IEO $(\exists x) (x \land Mx) (\exists x) (x \land Mx)$ $(\exists x) (x \land Mx) (\exists x) (x \land Mx)$ $(\exists x) (x \land Mx) (\exists x) (x \land Mx)$ $(\exists x) (x \land Mx) (\exists x) (x \land Mx)$ $(\exists x) (x \land Mx) (\exists x) (x \land Mx)$ $(\exists x) (x \land Mx) (\exists x) (x \land Mx)$ $(x \land Mx) (x \land Mx) (x \land Mx)$ $(x \land Mx) $	S > M S P O 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1 O 1 O	Some M is P. All M is not 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) $	Some P is M. All M is not S. ∴ Some S is P. $(∃x)(Px \land Mx)(∀x)(Mx \gt "Sx) = 6 & 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0$
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 P is M. All S is not M. ∴ Some S is P. $(∃x)(Px \land Mx)$ $(∀x)(Sx \gt Mx)$ $∴ (∃x)(Sx \land Px)$ Some P is M. $(∃x)(Tx)(Tx)(Tx)(Tx)(Tx)(Tx)(Tx)(Tx)(Tx)(T$	S > ™ 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	Some M is P. All M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Form: III-IEO Some M is P. $(\exists x) (Bx) (Bx) (Bx) (Bx) (Bx) (Bx) (Bx) ($	Some P is M. All M is not S. ∴ Some S 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.		Some P is M. All S is not M. ∴ Some S is P. $(∃x)(Px \land Mx)$ $(∀x)(Sx \gt Mx)$ $∴ (∃x)(Sx \land Px)$ Some P is M. All S is not M. $(∃x)(Tx \land Mx)$ $(∀x)(Tx \land M$	S > ™ 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 0 1	Some M is P. All M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Form: III-IEO Some M is P. All M is not S. $\exists \exists \exists \exists \exists \exists \exists \forall \forall \exists \exists \exists \land \exists \exists \exists \exists \exists \exists \exists $	Some P is M. All M is not S. ∴ Some S is P. $(∃x)(Px \land Mx)(∀x)(Mx \gt `Sx)$ $∴ (∃x)(Sx \land Px)$ Some P is M. All M is not S. $(∃x)(Px \land Mx)(∀x)(Mx \gt `Sx)(∀x)(Mx \gt `Sx)(Mx \gt `Sx)($
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 P is M. All S is not M. ∴ Some S is P.	S > ™ 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	Some M is P. All M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ Form: III-IEO Some M is P. All M is not S. ∴ Some S is not P. $(\exists x) (Mx \land Px)$	Some P is M. All M is not S. ∴ Some S is P. (∃x) (Px ∧ Mx) (∀x) (Mx > "Sx) ∴ (∃x) (Sx ∧ Px) Form: IV-IEO Some P is M. All M is not S. ∴ Some S is not P. Some P is M. All M is not S. ∴ Some S is not P. All M is not S. ∴ Some S is not P. Some P is M. All M is not S. ∴ Some S is not P. Some P is M. All M is not S. ∴ Some S is not P. Some P is M. All M is not S. ∴ Some S is not P. Some P is M. All M is not S. ∴ Some S is not P. Some P is M. All M is not S. ∴ Some S is not 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. ∴ Some S is not P.		Some P is M. All S is not M. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx > ™x) Form: II-IEO Some P is M. All S is not M. ∴ Some S is not P. Some P is M. All S is not M. ∴ Some S is not P. Some P is M. All S is not M. ∴ Some S is not P. 3	S > ™ S ∧ P 0	Some M is P. All M is not S. ∴ Some S is P. $(∃x) (Mx \land Px)$ $(∃x) (Sx \land Px)$ $(∃x) (∃x) (Sx \land Px)$ $(∃x) (∃x) (Sx \land Px)$ $(∃x) (Sx \land Px)$ $(∃x) (Sx \land Px)$ $(∃x) (Sx \land Px)$	Some P is M. All M is not S. ∴ Some S is P. $(∃x)(Px \land Mx)(∀x)(Mx \gt `Sx)$ $∴ (∃x)(Sx \land Px)$ Some P is M. All M is not S. $(∃x)(Px \land Mx)(∀x)(Mx \gt `Sx)(∀x)(Mx \gt `Sx)(Mx \gt `Sx)($
All S is not M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx \gt `Mx)$ ∴ $(\exists x) (Sx \land Px)$ Some M is P. All S is not M. ∴ Some S is not P. $(\exists x) (Mx \land Px)$		Some P is M. All S is not M. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$	S > ™ S ∧ P 0	Some M is P. All M is not S. ∴ Some S is P. $(∃x) (Mx \land Px)$ $(∃x) (Mx \land Px)$ $(∃x) (Sx \land Px)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) ($	Some P is M. All M is not S. ∴ Some S is P. $(∃x)(Px \land Mx)$ $(∀x)(Mx \gt `Sx)$ $∴ (∃x)(Sx \land Px)$ Some P is M. All M is not S. $(∃x)(Px \land Mx)$ $(∀x)(Mx \gt `Sx)$ $∴ (∃x)(Sx \land Px)$ Some P is M. All M is not S. ∴ Some S is not P. $(∃x)(Px \land Mx)$ $(∀x)(Mx \gt `Sx)$ $(∃x)(Sx \land Px)$ $($
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. ∴ Some S is not P. $(\exists x) (Mx \land Px)$ $(\exists x) (Mx \land Px)$ $(\forall x) (Sx > \text{`Mx})$		Some P is M. All S is not M. Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \gt Mx)$ $(\exists x) (Sx \gt Mx)$ $(\exists x) (Sx \land Px)$ $($	S > M S ∧ P 0	Some M is P. All M is not S. ∴ Some S is P. $(∃x) (Mx \land Px)$ $(∃x) (Sx \land Px)$ $(∃x) (Sx \land Px)$ $All M is not S. ∴ Some S is P. (∃x) (Mx \land Px) (∀x) (Mx \gt "Sx) ∴ (∃x) (Sx \land Px) (∃x) (∃$	Some P is M. All M is not S. ∴ Some S is P. $(∃x)(Px \land Mx)$ $(∀x)(Mx \gt "Sx)$ ∴ $(∃x)(Sx \land Px)$ Some P is M. All M is not S. ∴ Some S is P. $(∃x)(Px \land Mx)$ $(∀x)(Mx \gt "Sx)$ $(∀x)(Mx \gt "Sx)$ $(∃x)(Sx \land Px)$ $(∃x)(Sx$
All S is not M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\forall x) (Sx \gt `Mx)$ ∴ $(\exists x) (Sx \land Px)$ Some M is P. All S is not M. ∴ Some S is not P. $(\exists x) (Mx \land Px)$		Some P is M. All S is not M. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$	S > ™ S ∧ P 0	Some M is P. All M is not S. ∴ Some S is P. $(∃x) (Mx \land Px)$ $(∃x) (Mx \land Px)$ $(∃x) (Sx \land Px)$ $(∃x) (∃x) (∃x) (∃x)$ $(∃x) (∃x) ($	Some P is M. All M is not S. ∴ Some S is P. $(∃x)(Px \land Mx)$ $(∀x)(Mx \gt `Sx)$ $∴ (∃x)(Sx \land Px)$ Some P is M. All M is not S. $(∃x)(Px \land Mx)$ $(∀x)(Mx \gt `Sx)$ $∴ (∃x)(Sx \land Px)$ Some P is M. All M is not S. ∴ Some S is not P. $(∃x)(Px \land Mx)$ $(∀x)(Mx \gt `Sx)$ $(∃x)(Sx \land Px)$ $($

Form: I-IIA	Form: II-IIA	Form: III-IIA	Form: IV-IIA
E E E E		A E E E E	\forall
$oxed{S}$ $oxed{M}$ $oxed{P}$ $oxed{M} \wedge oxed{P}$ $oxed{S} \wedge oxed{M}$ $oxed{S} > oxed{D}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is P. 1 1 1 1 1 1 1	Some P is M. 1 1 1 1 1 1 1	Some M is P. 1 1 1 1 1 1 1	Some P is M. 1 1 1 1 1 1 1
Some S is M. 2 1 1 0 0 1 0	Some S is M. 2 1 1 0 0 1 0	Some M is S. 2 1 1 0 0 1 0	Some M is S. 2 1 1 0 0 1 0
∴ All S is P. 3 1 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	∴ All S is P. 3 1 0 1 0 0 1
4 1 0 0 0 0 0	4 1 0 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 1 0 1	$(\exists x) (Px \land Mx) \boxed{5} \boxed{0} \boxed{1} \boxed{1} \boxed{0} \boxed{1}$	$(\exists x) (Mx \land Px)$ 5 0 1 1 1 0 1	$(\exists x) (Px \land Mx) \boxed{5} \boxed{0} \boxed{1} \boxed{1} \boxed{0} \boxed{1}$
$(\exists x)(Sx \land Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 0 \qquad 1$	$ (\exists x) (Sx \land Mx) $	$(\exists x) (Mx \land Sx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 0 \qquad 1$	$(\exists x) (Mx \land Sx) \qquad \boxed{6} \qquad \boxed{0} \qquad \boxed{0} \qquad \boxed{0} \qquad \boxed{1}$
$\therefore (\forall x) (Sx > Px) 7 0 0 1 0 0 1$	$\therefore (\forall x) (Sx > Px) 7 0 0 1 0 0 1$	$\therefore (\forall x) (Sx > Px) 7 0 0 1 0 0 1$	$\therefore (\forall x)(Sx > Px) \boxed{7} \boxed{0} \boxed{0} \boxed{1} \boxed{0} \boxed{0} \boxed{1}$
8 0 0 0 0 1	8 0 0 0 0 1	8 0 0 0 0 1	8 0 0 0 0 1
Form: I-IIE	Form: II-IIE	Form: III-IIE	Form: IV-IIE
A E E E E E			
S M P M \wedge P S \wedge M S $>$ $'$	$f S M P P \land M S \land M S > \begin{tabular}{c c c c c c c c c c c c c c c c c c c $	S M P $M \land P$ $M \land S$ $S > "P$	S M P $P \land M$ $M \land S$ $S > "P$
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
Some S is M. 2 1 1 0 0 1 1	Some S is M. 2 1 1 0 0 1 1	Some M is S. 2 1 1 0 0 1 1	Some M is S. 2 1 1 0 0 1 1
∴ All S is not P. 3 1 0 1 0 0 0	∴ All S is not P. 3 1 0 1 0 0 0	∴ All S is not P. 3 1 0 1 0 0 0	∴ All S is not P. 3 1 0 1 0 0
4 1 0 0 0 0 1	4 1 0 0 0 0 1	4 1 0 0 0 1	4 1 0 0 0 0 1
$(\exists x) (Mx \land Px)$ 5 0 1 1 1 0 1	$(\exists x) (Px \land Mx)$ 5 0 1 1 1 0 1	$(\exists x) (Mx \land Px)$ 5 0 1 1 1 0 1	$(\exists x) (Px \land Mx)$ 5 0 1 1 0 1
$(\exists x) (Sx \land Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 0 \qquad 1$	$(\exists x) (Sx \land Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 0 \qquad 1$	$(\exists x) (Mx \land Sx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 0 \qquad 1$	$(\exists x) (Mx \land Sx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 0 \qquad 1$
	$\therefore (\forall x) (Sx > \text{``Px'}) 7 0 0 1 0 0 1$	$\therefore (\forall x) (Sx > \text{"Px}) \boxed{7} \boxed{0} \boxed{0} \boxed{1} \qquad \boxed{0} \qquad \boxed{1}$	$\therefore (\forall x) (Sx > ^nPx) \boxed{7} \boxed{0} \boxed{0} \boxed{1} \qquad \boxed{0} \qquad \boxed{1}$
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
Form: I-III	Form: II-III	Form: III-III	Form: IV-III
Form: I-III	Form: II-III	Form: III-III	Form: IV-III
			3 3 3 3 3
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
	Some P is M. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Some M is P. 1 1 1 1 1 1 Some S is M. 2 1 1 0 0 1 0	Some P is M. 1 1 1 1 1 1 1 1 1		
S M P M ∧ P S ∧ M S ∧ S S M P M ↑ D M ↑	Some P is M. 1 1 1 1 1 1 1 1 1		
	Some P is M. $\exists \exists $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some P is M.
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some P is M. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Some M is P.	Some P is M. Some M is S. ∴ Some S is P.
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some P is M.	Some M is P.	Some P is M. Some M is S. ∴ Some S is P. \exists \exists \exists \exists \exists \exists \exists \exists \exists \exists
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some P is M.	Some M is P.	Some P is M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Mx \land Sx)$
Some M is P.	Some P is M. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Some M is P.	Some P is M. Some M is S. ∴ Some S is P. (∃x)(Px ∧ Mx) (∃x)(Sx ∧ Px) $(∃x)(Sx ∧ Px)$
Some M is P. Some S is M. ∴ Some S is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land $	Some P is M. $\exists \exists $	Some M is P. $Some M is S$. ∴ Some S is P. $Some M is M is M is Min Min Min Min Min Min Min Min Min Min$	Some P is M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists r) (Sx \land Px)$
Some M is P. Some S is M.	Some P is M. $\exists \exists $	Some M is P. $Some M is S$. ∴ Some S is P. $Some M is S$. ∴ Some S is P. $Some M is S$. ∴ Some S is P. $Some M is S$. ∴ $Some M is M i$	Some P is M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px$
Some M is P. Some S is M.	Some P is M. $\exists \exists $	Some M is P. $Some M is S$. ∴ Some S is P. $Some M is M is M is Min Min Min Min Min Min Min Min Min Min$	Some P is M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px$
Some M is P. Some S is M.	Some P is M. Some S is M. Some S is P. Som	Some M is P. $Some M is S$. ∴ Some S is P. $Some M is S$. ∴ Some S is P. $Some M is S$. ∴ Some S is P. $Some M is S$. ∴ So	Some P is M. Some M is 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 M.	Some P is M.	Some M is P.	Some P is M. Some M is S. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx ∧ Px) ∴ (∃x) (Sx ∧ Px) Some P is M.
Some M is P. Some S is M. (∃x) (Mx ∧ Px) ∴ (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Px) Some M is P. (∃x) (Sx ∧ Px) (∃	Some P is M.	Some M is P.	Some P is M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Some P is M. Some M is S. $\exists \exists $
Some M is P. Some S is M. (∃x) (Mx ∧ Px) (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Px) Some M is P. (∃x) (Sx ∧ Mx) (∃x) (Sx ∧ Px) (∃x) (Bx ∧ Px) (∃x)	Some P is M. Some S is M. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx ∧ Px) Some P is M. ∃ ∃ ∃ ∃ ∃ ∃ ∃ S M P P ∧ M S ∧ M S ∧ P 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 0 0 1 0 0 1 1 0 0 0 1 1 4 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Some M is P. Some M is S. ∴ Some S is P. (∃x) (Mx ∧ Px) (∃x) (Mx ∧ Px) (∃x) (Sx ∧ Px) Some M is P. (∃x) (Mx ∧ Px) (∃x) (Sx ∧ Px) (∃x) (Mx ∧ Px) (∃x) (Sx ∧ Px) (∃x) (Sx	Some P is M. Some M is S. ∴ Some S is P. (∃x) (Px ∧ Mx) (∃x) (Sx ∧ Px) $∴ (∃x) (Sx ∧ Px)$
Some M is P. Some S is M. (∃x) (Mx ∧ Px) (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Px) Some M is P. (∃x) (Sx ∧ Px) Some M is P. Some M is P. Some S is M. Some S is not P. Some S is not P. Some M is P. Some S is not P. Some M is P. Some S is m. Some S is not P. Some M is P. Some S is M. Some S is not P. Some M is P. Some M is P. Some M is P. Some S is M. Some S is not P. Some M is P. Some M is P. Some M is P. Some S is M. Some S is not P. Some M is P. Some M	Some P is M. $\exists \exists $	Some M is P. Some M is S. ∴ Some S is P. (∃x) (Mx ∧ Px) (∃x) (Mx ∧ Px) (∃x) (Sx ∧ Px) Some M is P. Form: III-IIO Some M is P. Some M is S. ∴ Some S is not P. Some M is P. Some M is	Some P is M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$
Some M is P. Some S is M. ∴ Some S is P. (∃x) (Mx ∧ Px) ∴ (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Px) Some M is P. Some M is P. Some S is M. Some S is M. Some S is M. Some S is not P. (∃x) (Mx ∧ Px) (∃x) (Sx ∧ Mx) ∴ (∃x) (Sx ∧ Px) Some M is P. Some S is M. Some S is not P. (∃x) (Mx ∧ Px) (∃x) (Mx ∧ Px) Some M is P. Some S is M. Some S is not P. (∃x) (Mx ∧ Px) Some S is M. Some S is not P. (∃x) (Mx ∧ Px) Some S is M. Some S is not P. (∃x) (Mx ∧ Px) Some S is Not P. Some S is Not P. (∃x) (Mx ∧ Px) Some S is Not P. Some S is Not P. So	Some P is M. $\exists \exists $	Some M is P.	Some P is M. Some M is S. ∴ Some S is P. $(∃x) (Px \land Mx)$ $(∃x) (Sx \land Px)$ $∴ (∃x) (Sx \land Px)$ $Some P is M. (∃x) (Px \land Mx) (∃x) (Mx \land Sx) ∴ (∃x) (Sx \land Px) (∃x) (Sx \land Px) (∃x) (Fx \land Mx) (∃x)$
Some M is P.	Some P is M. $\exists \exists $	Some M is P.	Some P is M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $Some P is M. Some M is S. ∴ (\exists x) (Sx \land Px) $ $(\exists x) (Sx \land Px)$ $($

Form: I-IOA	Form: II-IOA	Form: III-IOA	Form: IV-IOA
\forall		lacksquare	A E E E E
$oxed{S}$ $oxed{M}$ $oxed{P}$ $oxed{M}$ $oxed{M}$ $oxed{N}$ $oxed{S}$ \triangleright $oxed{P}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	S M P $M \land P$ $M \land "S$ $S > P$	S M P $P \land M$ $M \land "S$ $S > P$
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 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
∴ All S is P. 3 1 0 1 0 1 1	∴ All S is P. 3 1 0 1 0 1 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 1 0	4 1 0 0 0 1 0	4 1 0 0 0 0	4 1 0 0 0 0 0
$(\exists x) (Mx \land Px)$ 5 0 1 1 1 0 1	$(\exists x) (Px \land Mx)$ 5 0 1 1 1 0 1	$(\exists x) (Mx \land Px) $ 5 0 1 1 1 1 1	$(\exists x) (Px \land Mx) 5 0 1 1 1 1$
$(\exists x) (Sx \land ^m X) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 0 \qquad 1$	$(\exists x) (Sx \land ^m x) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 0 \qquad 1$	$(\exists x) (Mx \land ^{"}Sx) \qquad 6 \qquad 0 \qquad 1 \qquad 1$	$\frac{(\exists x) (Mx \land ^{x}Sx)}{(\exists x) (Gx \land ^{x}Sx)} = \begin{pmatrix} 6 & 0 & 1 & 0 & 0 & 1 & 1 \\ 0 & 0 & 0 & 0 & 0 & 1 & 1 \end{pmatrix}$
$\therefore (\forall x) (Sx > Px) \qquad 7 \qquad 0 \qquad 0 \qquad 1 \qquad 0 \qquad 0 \qquad 1$	$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > Px) \begin{vmatrix} 7 & 0 & 0 & 1 & 0 & 0 & 1 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{vmatrix}$
8 0 0 0 0 0 1	8 0 0 0 0 0 1	8 0 0 0 0 0 1	
Form: I-IOE	Form: II-IOE	Form: III-IOE	Form: IV-IOE
			A B B B B A
$egin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
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 0 0	Some P is M. 1 1 1 1 0 0
Some S is not M. 2 1 1 0 0 0 1	Some S is not M. 2 1 1 0 0 0 1	Some M is not S. 2 1 1 0 0 0 1	Some 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 0 0	∴ All S is not P. 3 1 0 1 0 0 0
4 1 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 1 0 0 0 1 1	(7) (8, 4, 7)	4 1 0 0 0 1
$(\exists x) (Mx \land Px)$ 5 0 1 1 1 0 1 $(\exists x) (Sx \land "Mx)$ 6 0 1 0 0 0 1	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$(\exists x) (Mx \land Px)$ 5 0 1 1 1 1 1 (\(\exists x\)) $(Mx \land \text{``S}x)$ 6 0 1 0 0 1 1	$ \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	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Form: I-IOI	Form: II-IOI	Form: III-IOI	Form: IV-IOI
	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$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is P. Some S is not M.	Some P is M. Some S is P.	Some M is P.	Some P is M. Some M is not S. ∴ Some S is P.
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P.	Some P is M. Some M is not S. ∴ Some S is P. \exists \exists \exists \exists \exists \exists \exists \exists \exists \exists
Some M is P. Some S is not M. ∴ Some S is P. $(∃x)(Mx \land Px)$ $(∃x)(Mx \land Px)$ $(∃x)(Sx \land ^mMx)$ $(∃x)$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P.	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ $(\exists x) (Mx \land ``Sx)$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P. Some M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Mx \land $	Some P is M. Some M is not S. ∴ Some S is P. \exists \exists \exists \exists \exists \exists \exists \exists \exists \exists
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P. Some M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Mx \land $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P. Some M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Mx \land $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is P. Some S is not M. ∴ Some S is P. $(\exists x) (\exists x) $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is P. Some M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Sx \land $	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (S$
Some M is P. Some S is not M.	Some P is M. Some S is not M. ∴ Some S is P. $(\exists x) (\exists x) (\exists x \land $	Some M is P. Some M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Form: III-IOO $\exists \exists $	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (S$
Some M is P. Some S is not M. ∴ Some S is P. $(\exists x) (\exists x) (\exists x) (\exists x \land Px)$ ∴ $(\exists x) (\exists x \land$	Some P is M. Some S is not M. Some S is P. Some N is P. Some P is M.	Some M is P. Some M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ Some M is P. $(\exists x) (Mx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land P$	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Some P is M. $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Some P is M. $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Some P is M. $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$
Some M is P. Some S is not M. ∴ Some S is P. $(\exists x) (\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x) (\exists$	Some P is M. Some S is not M. Some S is P. Some S is Not M. Some S	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. Some M is P. Some M is P. Some M is not S. 2 1 1 0 0 0 0 0 1 4 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is P. Some S is not M. ∴ Some S is P. (∃x)(Mx ∧ Px) ∴ (∃x)(Sx ∧ ™x) ∴ (∃x)(Sx ∧ Px) Some M is P. Some M is P. 1 1 1 1 1 1 1 0 0 1 2 1 1 1 0 0 0 1 1 4 1 0 0 0 0 1 0 5 0 1 1 1 1 0 0 6 0 1 0 0 0 8 0 0 0 0 0 8 0 0 0 0 0 Form: I-IOO Some S is not M. ∴ Some S is not P. 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0	Some P is M. Some S is not M. ∴ Some S is P. $(\exists x) (\exists x) (\exists x \land $	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. Some M is P. Some M is not S. ∴ Some S is not P. Some M is not S. ∴ Some S is not P. Some M is P. Some M is not S. ∴ Some S is not P. Some M is P. Some M is not S. ∴ Some S is not P. Some M is P. Some M is not S. ∴ Some S is not P. Some M is P. Some M is not S.	Some P is M. Some M is not S. 2 1 1 0 0 0 0
Some M is P. Some S is not M. ∴ Some S is P. $(\exists x) (\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x) (\exists$	Some P is M. Some S is not M. ∴ Some S is P. $(\exists x) (\exists x) (\exists x \land \land \land x)$ ∴ $(\exists x) (\exists x \land $	Some M is P. Some M is not S. ∴ Some S is P. (∃x) (Mx ∧ Px) ∴ (∃x) (Sx ∧ Px) Some M is P. Form: III-IOO Some M is not S. Some M is P. □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	Some P is M. Some S is P.
Some M is P. Some S is not M. ∴ Some S is P. $(\exists x) (\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x$	Some P is 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. Som	Some M is P. Some M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Mx \land $	Some P is M. Some S is P. 3
Some M is P. Some S is not M. ∴ Some S is P. $(\exists x) (\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x$	Some P is M. Some S is not M. ∴ Some S is P. (∃x) (Px ∧ Mx) ∴ (∃x) (Sx ∧ Px) Some P is M. The state of the state o	Some M is P. Some M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Mx \land $	Some P is M. Some M is not S. ∴ Some S is P. $(∃x)(Px \land Mx)$ $(∃x)(Sx \land Px)$ $∴ (∃x)(Sx \land Px)$ Some P is M. Some P is M. $(∃x)(Px \land Mx)$ $(∃x)(Mx \land ``Sx)$ $∴ (∃x)(Sx \land Px)$ $(∃x)(Sx \land Px)$ Some P is M. Some M is not S. ∴ Some S is not P. $(∃x)(Px \land Mx)$ $(∃x)(Fx \land Mx)$ $(∃$
Some M is P. Some S is not M. ∴ Some S is P. $(\exists x) (\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x) (\exists x \land Px)$ $(\exists x) (\exists x$	Some P is 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. Som	Some M is P. Some M is not S. ∴ Some S is P. $(\exists x) (Mx \land Px)$ $(\exists x) (Mx \land $	Some P is M. Some M is not S. ∴ Some S is P. $(\exists x) (Px \land Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ Some P is M. Some M is not S. ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land $

Form: I-OAA	Form: II-OAA	Form: III-OAA	Form: IV-OAA
$egin{array}{ c c c c c c c c c c c c c c c c c c c$	S M P $P \land "M$ $S > M$ $S > P$	S M P $M \land "P$ $M > S$ $S > P$	S M P $P \land "M$ $M > S$ $S > P$
Some M is not P. 1 1 1 1 0 1 1	Some P is not M. 1 1 1 1 0 1 1	Some M is not P. 1 1 1 1 0 1 1	Some P is not M. 1 1 1 1 0 1 1
All S is M. 2 1 1 0 1 1 0	All S is M. 2 1 1 0 0 1 0	All M is S. 2 1 1 0 1 1 0	All M is S. 2 1 1 0 0 1 0
∴ All S is P. 3 1 0 1 0 0 1	∴ All S is P. 3 1 0 1 1 0 1	∴ All S is P. 3 1 0 1 0 1 1	∴ All S is P. 3 1 0 1 1 1 1
4 1 0 0 0 0	4 1 0 0 0 0	4 1 0 0 0 1 0	4 1 0 0 0 1 0
$(\exists x) (Mx \land Px) $	$(\exists x) (Px \land `Mx) $ 5 0 1 1 0 1 1	$(\exists x) (Mx \land "Px) $ 5 0 1 1 0 0 1	$(\exists x) (Px \land ``Mx) $ $\begin{bmatrix} 5 & 0 & 1 & 1 & 0 & 0 & 1 \end{bmatrix}$
$(\forall x) (Sx > Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 1 \qquad 1$	$(\forall x) (Sx > Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 1$	$(\forall x) (Mx > Sx) \qquad \boxed{6 0 1 0 1} \qquad \boxed{0}$	$(\forall x) (Mx > Sx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 1$
$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > Px) 7 0 0 1 0 1 1$	$\therefore (\forall x) (Sx > Px) $
8 0 0 0 0 1 1	8 0 0 0 0 1 1	8 0 0 0 0 1 1	8 0 0 0 0 1 1
Form: I-OAE	Form: II-OAE	Form: III-OAE	Form: IV-OAE
		□ ∃ ∃ ∃ ∃ ∀ □ ∀	A A E E E E E
S M P $M \land "P$ $S > M$ $S > "P$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	S M P $M \land "P$ $M > S$ $S > "P$	S M P $P \land "M$ $M > S$ $S > "P$
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 M is not P. 1 1 1 1 0 1 0	Some P is not M. 1 1 1 1 0 1 0
All S is M. 2 1 1 0 1 1 1	All S is M. 2 1 1 0 0 1 1	All M is S. 2 1 1 0 1 1 1	All 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 1 0	∴ All S is not P. 3 1 0 1 1 1 0
4 1 0 0 0 0 1	4 1 0 0 0 1	4 1 0 0 0 1 1	4 1 0 0 0 1 1
$(\exists x) (Mx \land "Px)$ 5 0 1 1 0 1 1	$(\exists x) (Px \land ``Mx) 5 0 1 1 0 1 1$	$(\exists x) (Mx \land "Px) $	$(\exists x) (Px \land ``Mx) $ 5 0 1 1 0 0 1
$\frac{(\forall x) (Sx > Mx)}{(Sx > Mx)} 6 0 1 0 1 1 1$	$\frac{(\forall x) (Sx > Mx)}{(Sx > Mx)} \begin{array}{c ccccc} 6 & 0 & 1 & 0 & 0 & 1 & 1 \\ \hline \end{array}$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ (\forall x) (Mx > Sx) $
$\therefore (\forall x) (Sx > ^nPx) 7 0 0 1 0 1 1$	$\therefore (\forall x) (Sx > ^mPx) 7 0 0 1 1 1 1$	$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > Px) $
8 0 0 0 0 1 1	8 0 0 0 0 1 1 1	8 0 0 0 0 1 1	8 0 0 0 0 1 1
Form: I-OAI	Form: II-OAI	Form: III-OAI	Form: IV-OAI
E V E E E E	3 3 3 A 3	[3 3 3 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$			
Some M is not P. All S is M. ∴ Some S is P. $ \begin{vmatrix} 3 & 3 & 3 & 3 & 3 & 4 & 4 & 4 & 4 & 4 & $	Some P is not M.	Some M is not P.	Some P is not M. All M is S. ∴ Some S is P. \exists \exists \exists \exists \forall \exists
Some M is not P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land "Px)$ $\exists \exists \exists$	Some P is not M.	Some M is not P.	Some P is not M.
Some M is not P. All S is M. ∴ Some S is P. $(∃x) (Mx \land "Px) (∀x) (Sx > Mx)$ $(∀x) (Sx > Mx)$ $(∃x) (Mx \land "Px) (∀x) (∃x) (Mx) (Mx) (Mx) (Mx) (Mx) (Mx) (Mx) (M$	Some P is not M.	Some M is not P. All M is S. ∴ Some S is P. (∃x) (Mx ∧ "Px) $(∀x) (Mx > Sx)$ $(∃x) (Mx > Sx)$	Some P is not M.
Some M is not P. All S is M. Some S is P. $(\exists x) (Mx \land "Px) (\exists x \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) ($	Some P is not M.	Some M is not P. All M is S. ∴ Some S is P. (∃x) (Mx ∧ "Px) $(∃x) (Sx ∧ Px)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x)$	Some P is not M.
Some M is not P. All S is M. ∴ Some S is P. $(∃x) (Mx \land "Px) (∀x) (Sx > Mx)$ $(∀x) (Sx > Mx)$ $(∃x) (Mx \land "Px) (∀x) (∃x) (Mx) (Mx) (Mx) (Mx) (Mx) (Mx) (Mx) (M$	Some P is not M.	Some M is not P. All M is S. ∴ Some S is P. (∃x) (Mx ∧ "Px) $(∀x) (Mx > Sx)$ $(∃x) (Mx > Sx)$	Some P is not M.
Some M is not P. All S is M. Some S is P. $(\exists x) (Mx \land "Px)$ $(\exists x) (Sx > Mx)$ $(\exists x) (Sx > Mx)$ $(\exists x) (Sx > Mx)$ $(\exists x) (Mx \land "Px)$ $(\exists x) (Sx > Mx)$ $(\exists x) (Sx > Px)$ $Form: I-OAO$	Some P is not M.	Some M is not P. All M is S. ∴ Some S is P. (∃x) (Mx ∧ "Px) $(∃x) (Sx ∧ Px)$ $(∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x) (∃x)$	Some P is not M.
Some M is not P. All S is M. Some S is P. $(\exists x) (Mx \land "Px)$ $(\exists x) (Sx > Mx)$ $(\exists x) (Sx > Mx)$ $(\exists x) (Mx \land "Px)$ $(\exists x) (Sx > Mx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $Form: I-OAO$	Some P is not M.	Some M is not P. All M is S. Some S is P. $(\exists x) (Mx \land "Px)$ $(\exists x) (Sx \land Px)$	Some P is not M. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is not P. All S is M. Some S is P. $(\exists x) (Mx \land "Px)$ $(\exists x) (Sx > Mx)$ $(\exists x) (Sx > Mx)$ $(\exists x) (Mx \land "Px)$ $(\exists x) (Sx > Mx)$	Some P is not M.	Some M is not P. All M is S. Some S is P. $(\exists x) (Mx \land "Px) (\exists x) (Mx \land Sx)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (Sx \land Px) (Sx \land Px)$ $(\exists x) (Sx \land Px$	Some P is not M.
Some M is not P.	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is not P. All M is S. Some S is P. $(\exists x) (Mx \land ``Px) (\exists x) (Mx \land Sx)$ $(\exists x) (Mx \land Sx) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px) (Sx \land Px) (Sx \land$	Some P is not M. All M is S. ∴ Some S is P. $(∃x)(Px \land ``Mx)(∀x)(Mx > Sx)$ ∴ $(∃x)(Sx \land Px)$ $(∃x)(Sx \land Px$
Some M is not P. All S is M. Some S is P. $(\exists x) (Mx \land ``Px)$ $(\exists x) (Mx \land ``Px)$ $(\exists x) (Sx \gt Mx)$ $(\exists x) (Sx \gt Mx)$ $(\exists x) (Sx \gt Mx)$ $(\exists x) (Sx \gt Px)$ Form: I-OAO Some M is not P. All S is M. $(\exists x) (\exists x) ($	Some P is not M.	Some M is not P. All M is S. Some S is P. $(\exists x) (Mx \land ``Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists All M is S.)$ $(All M is S.)$ $($	Some P is not M. All M is S. Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Sx \land Px)$
Some M is not P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land ``Px)$ ∴ $(\exists x) (Sx \gt Mx)$ ∴ $(\exists x) (Sx \gt Mx)$ ∴ $(\exists x) (Sx \gt Px)$ Form: I-OAO Some M is not P. All S is M. ∴ Some S is not P. $(\exists \exists \exists \exists \exists \exists \exists \forall \exists \exists \land \land Px)$ $(\exists \exists $	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is not P. All M is S. ∴ Some S is P. $(∃x) (Mx ∧ ``Px)$ $(∀x) (Mx > Sx)$ ∴ $(∃x) (Sx ∧ Px)$ $(∃x)$	Some P is not M. All M is S. ∴ Some S is P. $(∃x)(Px \land ``Mx)$ $(∃x)(Px \land ``Mx)$ $(∃x)(Sx \land Px)$ $(∃x)(Sx \land$
Some M is not P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land ``Px)$ ∴ $(\exists x) (Sx \gt Mx)$ ∴ $(\exists x) (Sx \gt Mx)$ ∴ $(\exists x) (Sx \gt Px)$ Form: I-OAO Some M is not P. All S is M. ∴ Some S is not P. All S is M. ∴ Some S is not P. $(\exists x) (Ax) (Ax) (Ax) (Ax) (Ax) (Ax) (Ax) ($	Some P is not M.	Some M is not P. All M is S. ∴ Some S is P. $(∃x) (Mx ∧ ``Px)$ $(∃x) (Mx > Sx)$ ∴ $(∃x) (Sx ∧ Px)$ $(∃x) (Mx > Sx)$ $(∃x) (Mx > Sx)$ $(∃x) (Mx > Sx)$ $(∃x) (Sx ∧ Px)$ $(∃x) (Mx > Sx)$ $(∃x) (Sx ∧ Px)$ $(∃x)$	Some P is not 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 not P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land ``Px)$ ∴ $(\exists x) (Sx \land Px)$ Some M is not P. All S is M. ∴ Some S is not P. All S is M. ∴ Some S is not P. $(\exists x) (Mx \land ``Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is not P. All M is S. Some S is P. $(\exists x) (Mx \land ``Px)$ $(\exists x) (Mx \land Sx)$ $(\exists x) (Mx \land Sx)$ $(\exists x) (Mx \land Sx)$ $(\exists x) (Sx \land Px)$ Form: III-OAO (15, 19, 24) Some M is not P. All M is S. Some S is not P. All M is S. Some S is not P. $(\exists x) (Mx \land ``Px)$ Some M is not P. All M is S. Some S is not P. $(\exists x) (Mx \land ``Px)$ $(\exists$	Some P is not M. All M is S. ∴ Some S is P. $(∃x)(Px \land ``Mx)$ $(∃x)(Sx \land Px)$ $∴ (∃x)(Sx \land Px)$ Some P is not M. All M is S. ∴ Some S is P. $(∃x)(Px \land ``Mx)$ $(∀x)(Mx > Sx)$ $∴ (∃x)(Sx \land Px)$ Form: IV-OAO Form: IV-OAO Form: IV-OAO All M is S. ∴ Some S is not P. $(∃x)(Px \land ``Mx)$
Some M is not P. All S is M. Some S is P. $(\exists x) (Mx \land ``Px)$ $(\exists x) (Sx \gt Mx)$		Some M is not P. All M is S. Some S is P. $(\exists x) (Mx \land ``Px)$ $(\exists x) (Mx \land Sx)$ $(\exists x) (Sx \land Px)$	Some P is not M. All M is S. ∴ Some S is P. $(∃x)(Px \land ``Mx)$ $(∃x)(Sx \land Px)$ $∴ (∃x)(Sx \land Px)$ Some P is not M. All M is S. ∴ Some S is P. $(∃x)(Px \land ``Mx)$ $(∀x)(Mx > Sx)$ $∴ (∃x)(Sx \land Px)$ Form: IV-OAO Form: IV-OAO Form: IV-OAO All M is S. ∴ Some S is not P. $(∃x)(Px \land ``Mx)$ $(∀x)(Mx > Sx)$ $(∀x)(Mx > Sx)$ $(∀x)(Mx > Sx)$
Some M is not P. All S is M. ∴ Some S is P. $(\exists x) (Mx \land ``Px)$ ∴ $(\exists x) (Sx \land Px)$ Some M is not P. All S is M. ∴ Some S is not P. All S is M. ∴ Some S is not P. $(\exists x) (Mx \land ``Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is not P. All M is S. Some S is P. $(\exists x) (Mx \land ``Px)$ $(\exists x) (Mx \land Sx)$ $(\exists x) (Mx \land Sx)$ $(\exists x) (Mx \land Sx)$ $(\exists x) (Sx \land Px)$ Form: III-OAO (15, 19, 24) Some M is not P. All M is S. Some S is not P. All M is S. Some S is not P. $(\exists x) (Mx \land ``Px)$ Some M is not P. All M is S. Some S is not P. $(\exists x) (Mx \land ``Px)$ $(\exists$	Some P is not M. All M is S. ∴ Some S is P. $(∃x)(Px \land ``Mx)$ $(∃x)(Sx \land Px)$ $∴ (∃x)(Sx \land Px)$ Some P is not M. All M is S. ∴ Some S is P. $(∃x)(Px \land ``Mx)$ $(∀x)(Mx > Sx)$ $∴ (∃x)(Sx \land Px)$ Form: IV-OAO Form: IV-OAO Form: IV-OAO All M is S. ∴ Some S is not P. $(∃x)(Px \land ``Mx)$

	Form: I-OEA	Form: II-OEA	Form: III-OEA	Form: IV-OEA
	A B E E E E	3 3 3 A A	3 3 3 A A	$oxed{ eta}$
	S M P $M \wedge "P$ $S > "M$ $S > P$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	S M P $P \land "M$ $M \gt "S$ $S \gt P$
Some M is not P. 1	1 1 1 0 0 1	Some P is not M. 1 1 1 1 0 0 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
All S is not M. 2	2 1 1 0 1 0 0	All S is not M. 2 1 1 0 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
∴ All S is P. 3	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 1 1	∴ All S is P. 3 1 0 1 1 1 1
4	1 1 0 0 0 1 0	4 1 0 0 0 1 0	4 1 0 0 0 1 0	4 1 0 0 0 1 0
$(\exists x) (Mx \land "Px) = 5$	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
$(\forall x) (Sx > Mx) = 6$	3 0 1 0 1 1 1	$(\forall x) (Sx > Mx) $	$(\forall x) (Mx > "Sx)$ 6 0 1 0 1 1 1	$(\forall x) (Mx > x) $
$(\forall x) (Sx > Px)$ 7	7 0 0 1 0 1 1	$(\forall x) (Sx > Px) \qquad 7 0 0 1 \qquad 1 \qquad 1$	$(\forall x) (Sx > Px) \qquad 7 \qquad 0 \qquad 0 \qquad 1 \qquad 1$	$(\forall x) (Sx > Px) \qquad 7 0 0 1 \qquad 1 \qquad 1$
8	3 0 0 0 0 1 1	8 0 0 0 0 1 1	8 0 0 0 0 1 1	8 0 0 0 0 1 1
	Form: I-OEE	Form: II-OEE	Form: III-OEE	Form: IV-OEE
	3 3 3 A A			
	S M P $M \land "P$ $S > "M$ $S > "P$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is not P. 1	1 1 1 0 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	2 1 1 0 1 0 1	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	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 1 0 0 0 1 1 1	4 1 0 0 0 1 1	4 1 0 0 0 1 1	4 1 0 0 0 1 1
$(\exists x) (Mx \land "Px) $ 5		$(\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
$(\forall x) (Sx > Mx) \qquad 6$		$(\forall x) (Sx > Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 1$	$(\forall x) (Mx > \tilde{S}x) 6 0 1 0 1 1 1$	$(\forall x) (Mx > \tilde{S}x) \boxed{6} \boxed{0} \boxed{1} \boxed{0} \boxed{1} \boxed{1}$
$\therefore (\forall x) (Sx > ^nPx) \boxed{7}$	7 0 0 1 0 1 1	$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > ^{n}Px) 7 0 0 1 0 1 1$	$\therefore (\forall x) (Sx > Px) $
8	3 0 0 0 0 1 1	8 0 0 0 0 1 1	8 0 0 0 0 1 1	8 0 0 0 0 1 1
	B 10B	P		P. WORK
	Form: I-OEI	Form: II-OEI	Form: III-OEI	Form: IV-OEI
				3 3 3 V 3
G M: 4 B	$S M P M \wedge "P S > "M S \wedge P$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is not P. 1		Some P is not M. 1 1 1 1 0 0 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
All S is not M. 2		All S is not M. 2 1 1 0 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
∴ Some S is P. 3		∴ Some S is P. 3 1 0 1 1 1 1 1	∴ Some S is P. 3 1 0 1 0 1 1	∴ Some S is P. 3 1 0 1 1 1 1 1
4		(7) (R + 7) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	$ (\exists x) (Mx \land {}^{n}Px) \begin{vmatrix} 4 & 1 & 0 & 0 & 0 & 1 & 0 \\ 5 & 0 & 1 & 1 & 0 & 1 & 0 \end{vmatrix} $	4 1 0 0 0 1 0
$(\exists x) (Mx \land "Px) $ 5		$(\exists x) (Px \land ^{M}x) \qquad 5 \qquad 0 \qquad 1 \qquad 1 \qquad 0$	(==; (===; ===; === = = = = = = = = = =	$(\exists x) (Px \land ^mMx) \qquad 5 \qquad 0 \qquad 1 \qquad 1 \qquad 0$
$\frac{(\forall x) (Sx > \text{M}x)}{(\exists x) (Sx \land Px)} = \frac{6}{7}$		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
8	3 0 0 0 0 1 0	8 0 0 0 0 1 0	8 0 0 0 0 1 0	8 0 0 0 0 1 0
	D 1000	п. н.опо	D 111.000	D W 000
	Form: I-OEO	Form: II-OEO	Form: III-OEO	Form: IV-OEO
	3 3 3 3 V 7			3 3 3 4 4 3
G M: 4 B	S M P $M \land "P$ $S > "M$ $S \land "P$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Some M is not P. 1		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		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
∴ Some S is not P. 3		.: Some S is not P. 3 1 0 1 1 1 0	.: Some S is not P. 3 1 0 1 0 1 0	∴ Some S is not P. 3 1 0 1 1 1 0
4		4 1 0 0 0 1 1	4 1 0 0 0 1 1	4 1 0 0 0 1 1
$(\exists x) (Mx \land "Px) $ 5	5 0 1 1 0 1 0	$(\exists x) (Px \land `Mx) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$	$(\exists x) (Mx \land Px) $	$(\exists x) (Px \land `Mx) $
		() /) / (7 : 1/2) 0 0 0 0 1 0 0 1	() /) /24 . Mm) 0 0 4 0 4 1 1 1 1 1 1 1 1 1	
$\frac{(\forall x) (Sx > ^mMx)}{(\vec{x} + \vec{x})} = 6$		$\frac{(\forall x) (Sx > ^m Xx)}{(\exists x) (Sx + ^m Xx)} = \begin{pmatrix} 6 & 0 & 1 & 0 & 0 & 1 & 0 \\ 0 & 0 & 0 & 0 & 1 & 0 & 0 \end{pmatrix}$	$\frac{(\forall x) (Mx > "Sx)}{(\neg x) (\neg x = "Sx)} \begin{array}{c cccc} 6 & 0 & 1 & 0 & 1 & 1 & 0 \\ \hline \end{array}$	$\frac{(\forall x) (Mx > ^{n}Sx)}{(\overrightarrow{G} \rightarrow (\overrightarrow{G} \rightarrow (\overrightarrow{G}$
$ \begin{array}{c c} $	7 0 0 1 0 1 0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Form: I-OIA	Form: II-OIA	Form: III-OIA	Form: IV-OIA
$f S M P M \land \H P S \land M S > P$	S M P $P \land "M$ $S \land M$ $S > P$	S M P $M \land "P$ $M \land S$ $S > P$	S M P $P \land "M$ $M \land S$ $S > P$
Some M is not P. 1 1 1 1 0 1 1	Some P is not M. 1 1 1 1 0 1 1	Some M is not P. 1 1 1 1 0 1 1	Some P is not M. 1 1 1 1 0 1 1
Some S is M. 2 1 1 0 1 1 0	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 1	∴ 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 0	4 1 0 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 1	$(\exists x) (Px \land `Mx) $ 5 0 1 1 0 0 1	$(\exists x) (Mx \land "Px) $ 5 0 1 1 0 0 1	$(\exists x) (Px \land `Mx) $
$(\exists x) (Sx \land Mx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 1$	$ (\exists x) (Sx \land Mx) $	$(\exists x) (Mx \land Sx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 1$	$(\exists x) (Mx \land Sx) \qquad 6 \qquad 0 \qquad 1 \qquad 0 \qquad 0 \qquad 1$
$\therefore (\forall x) (Sx > Px) $	$\therefore (\forall x) (Sx > Px) 7 0 0 1 1 0 1$	$\therefore (\forall x) (Sx > Px) 7 0 0 1 0 0 1$	$\therefore (\forall x) (Sx > Px) 7 0 0 1 1 0 1$
8 0 0 0 0 0 1	8 0 0 0 0 0 1	8 0 0 0 0 0 1	8 0 0 0 0 1
Form: I-OIE	Form: II-OIE	Form: III-OIE	Form: IV-OIE
	3 3 3 3 4	3 3 3 3 4	3 3 3 3 4
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
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 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 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 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
(¬¬) (M, A, ¬¬¬¬)	(7-) (Pa 4 "Ma)	4 1 0 0 0 1 5 0 4 4 0 0 0 1	$(7.)(7)(7)$ $\begin{bmatrix} 4 & 1 & 0 & 0 & 0 & 1 \\ 5 & 0 & 4 & 4 & 0 & 0 \end{bmatrix}$
$(\exists x) (Mx \land ``Px) 5 0 1 1 0 0 1$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$(\exists x) (Mx \land "Px) $	$(\exists x) (Px \land ``Mx) $ $\begin{vmatrix} 5 & 0 & 1 & 1 & 0 & 0 & 1 \\ (\exists x) (Mx \land Sx) & 6 & 0 & 1 & 0 & 0 & 0 & 1 \end{vmatrix}$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	(217)(4117)	$ \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		8 0 0 0 0 1	8 0 0 0 0 1
Form: I-OII	Form: II-OII	Form: III-OII	Form: IV-OII
Form: I-OII	Form: II-OII	Form: III-OII	Form: IV-OII
3 3 3 3 3			3 3 3 3 3
Some M is not P.			
Some M is not P.	Some P is not M. $\exists \exists $	Some M is not P.	Some P is not M. $\frac{Some \ M \ is \ S.}{\cdot}$ Some S is P. $\exists \ \exists \$
Some M is not P.	Some P is not M.	Some M is not P.	Some P is not M. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$
Some M is not P.	Some P is not M.	Some M is not P.	Some P is not M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Mx \land Sx)$ $(\exists x) (Mx $
Some M is not P.	Some P is not M.	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. Some M is S. ∴ Some S is P. $(\exists x) (Px \land ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) $
Some M is not P.	Some P is not M.	Some M is not P.	Some P is not M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Mx \land Sx)$ $(\exists x) (Mx $
Some M is not P.	Some P is not M. Some S is M. ∴ Some S is P. $(∃x)(Px \land ^mx)$ $(∃x)(Sx \land Px)$ $(∃x)(Sx$	Some M is not P. Some M is S. ∴ Some S is P. $(\exists x) (Mx \land ``Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (S$	Some P is not M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) $
Some M is not P.	Some P is not M.	Some M is not P.	Some P is not M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ Form: IV-OIO
Some M is not P.	Some P is not M.	Some M is not P.	Some P is not M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land ``Mx)$ ∴ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) $
Some M is not P.	Some P is not M.	Some M is not P. Some M is S. ∴ Some S is P. $(\exists x) (Mx \land ``Px)$	Some P is not M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (S$
Some M is not P.	Some P is not M.	Some M is not P. Some M is S. ∴ Some S is P. (∃x) (Mx ∧ "Px) ∴ (∃x) (Sx ∧ Px) Form: III-OIO Some M is not P. (∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ (S M P M ∧ "P M ∧ S S ∧ P (A D D D D D D D D (A D D D D D D (A D D (A D D D (A D D (A D D D (A	Some P is not M. Some M is S. ∴ Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Sx \land Px)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ Some P is not M. $(\exists x) (\exists $
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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 M is not P. Some S is M. 1 1 1 1 1 0 1 1 0 1 1 0 0 1 1 1 0 0 0 0	Some P is not M. Some S is M. ∴ Some S is P. $(\exists x) (Px \land ^m x)$ ∴ $(\exists x) (Sx \land Px)$ $(\exists x) (Sx \land Px)$ Some P is not M. Some S is M. ∴ Some S is not P. $(\exists x) (\exists x)$	Some M is not P. Some M is S. ∴ Some S is P. $(\exists x) (Mx \land `Px)$	Some P is not M. $\frac{Some\ M\ is\ S.}{(\exists x)\ (Px \land ``Mx)}$ $\frac{(\exists x)\ (Px \land ``Mx)}{(\exists x)\ (Sx \land Px)}$ $\frac{(\exists x)\ (Sx \land Px)}{(\exists x)\ (Sx \land Px)}$ $\frac{(\exists x)\ (Sx \land Px)}{(Sx \land Px)}$ $\frac{(\exists x)\ (Sx \land Px)}{(S$
Some M is not P. $Some S is M$. ∴ Some S is P. $Some S is M$. ∴ $Some S is M$	Some P is not M. $\exists \exists $	Some M is not P. Some M is S. ∴ Some S is P. $(\exists x) (Mx \land ``Px)$	Some P is not M. $\frac{Some \ M \ is \ S}{Some \ S \ is \ P}$. ∴ Some S is P. $\frac{1}{4}$ 1 0 0 0 1 0 1 $\frac{1}{4}$ 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Some M is not P.	Some P is not M. $\exists \exists $	Some M is not P. Some M is S. ∴ Some S is P. $(\exists x) (Mx \land ``Px)$	Some P is not M. $Some M is S$. ∴ Some S is P. $Some M is S$. ∴ Some S is P. $Some M is M$. ∴ Some S is not P. $Some M is M$. $Some M$ $Some M is M$. $Some M$

Form	: I-OOA		Form: II-OOA			Form: III-OOA		Form: IV-OOA
3 3	3 3 3	√		∃ ∀		A E E E E E		A B B B B B A
S M	P M A "P S A "M S	> P	S M P P ^ M S	S ^ "M S > P		S M P M A "P M A "S S >	P	S M P $P \land "M$ $M \land "S$ $S > P$
Some M is not P. 1 1 1	1 0 0	Some P is not M.	1 1 1 1 0	0 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
Some S is not M. 2 1 1	0 1 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
4 1 0	0 0 1	0	4 1 0 0 0	1 0		4 1 0 0 0 0 0	-	4 1 0 0 0 0 0
(∃x)(Mx ∧ "Px) 5 0 1	1 0 0	$1 \qquad (\exists x) (Px \land "Mx)$	5 0 1 1 0	0 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
$(\exists x) (Sx \land \text{`M}x) \mid 6 \mid 0 \mid 1$	0 1 0	$1 \qquad (\exists x) (Sx \land "Mx)$	6 0 1 0 0	0 1	$(\exists x) (Mx \land "Sx)$	6 0 1 0 1 1 1	$(\exists x) (Mx \land "Sx)$	6 0 1 0 0 1 1
$(\forall x) (Sx > Px) 7 0 0$		1 $(\forall x) (Sx > Px)$	7 0 0 1 1	0 1	$(\forall x) (Sx > Px)$	7 0 0 1 0 0 1		
8 0 0	0 0 0	1	8 0 0 0 0	0 1	, , , , , ,	8 0 0 0 0 0 1		8 0 0 0 0 1
Form	: I-OOE		Form: II-OOE			Form: III-OOE		Form: IV-OOE
<u> </u>	3 3 3	A		3 A		A E E E E		\forall
S M	P M A "P S A "M S	> "P	S M P P ^ M S	S ^ "M		S M P M A "P M A "S S >	*P	S M P $P \wedge M \wedge S S \wedge P$
Some M is not P. 1 1 1	1 0 0	O 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 0 0 0
Some S is not M. 2 1 1	0 1 0	Some S is not M.	2 1 1 0 0	0 1	Some M is not S.	2 1 1 0 1 0 1	Some 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 0 0	: All S is not P.	
4 1 0		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 "Px) $ 5 0 1	1 0 0	1 $(\exists x) (Px \land "Mx)$	5 0 1 1 0	0 1	$(\exists x) (Mx \land "Px)$	5 0 1 1 0 1 1	—————————————————————————————————————	5 0 1 1 0 1 1
$(\exists x) (Sx \land \text{`M}x) \mid 6 \mid 0 \mid 1$	0 1 0	$1 \qquad (\exists x) (Sx \land "Mx)$	6 0 1 0 0	0 1	$(\exists x) (Mx \land "Sx)$	6 0 1 0 1 1 1	(∃x) (Mx ∧ "Sx)	6 0 1 0 0 1 1
$\therefore \overline{(\forall x) (Sx > "Px)} 7 0 0$		$1 \qquad \therefore \overline{(\forall x) (Sx > ^n Px)}$	7 0 0 1 1	0 1	$(\forall x) (Sx > Px)$	7 0 0 1 0 0 1		
8 0 0		1	8 0 0 0 0	0 1		8 0 0 0 0 0 1		8 0 0 0 0 1
Form	: I-OOI		Form: II-OOI			Form: III-OOI		Form: IV-OOI
Form		3	Form: II-OOI	3 3		Form: III-OOI		Form: IV-OOI
	3 3 3	∃ ∧ P		∃ ∃ S∧~M S∧P			P	
E E	∃ ∃ ∃ P M∧~P S∧~M S				Some M is not P.	∃ ∃ ∃ ∃ ∃ S M P M ∧ "P M ∧ "S S ∧		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
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Some M is not P. 1 1 1 1	∃ ∃ ∃ P M ∧ "P S ∧ "M S 1 0 0 0 1 0	O P Some P is not M.	∃ ∃ ∃ ∃ S M P P ∧ "M S 1 1 1 1 0 2 1 1 0 0	S ∧ "M S ∧ P 0 1			Some P is not M. Some M is not S.	∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃
Some M is not P. 1 1 1 1 Some S is not M. 2 1 1	∃ ∃ ∃ P M ∧ "P S ∧ "M S 1 0 0 0 1 0 1 0 1	 ∧ P 1 Some P is not M. Some S is not M. 	∃ ∃ ∃ ∃ S M P P ∧ "M S 1 1 1 1 0 2 1 1 0 0	S ∧ "M S ∧ P 0 1 0 0	Some M is not S.	B B B B B S M P M \(^*P \) M \(^*S \) S \(\) 1 1 1 1 0 0 1 2 1 1 0 1 0 0	Some P is not M. Some M is not S. ∴ Some S is P.	∃ ∃ ∃ ∃ ∃ ∃ S M P P ∧ "M M ∧ "S S ∧ P 1 1 1 1 0 0 1 2 1 1 0 0 0 0
Some M is not P. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	∃ ∃ ∃ P M ∧ "P S ∧ "M S 1 0 0 0 1 0 1 0 1 0 0 1	↑ P 1 Some P is not M. 0 Some S is not M. 1 ∴ Some S is P.		S \ ^M S \ P 0 1 0 0 1 1 1 1	Some M is not S.	∃ ∃ ∃ ∃ ∃ S M P M ∧ "P M ∧ "S S ∧ 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 0 0 1	Some P is not M. Some M is not S. ∴ Some S is P.	∃ ∃ ∃ ∃ ∃ S M P P ∧ M M ∧ S S ∧ P 1 1 1 1 0 0 1 2 1 1 0 0 0 0 3 1 0 1 1 0 1
Some M is not P. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	∃ ∃ ∃ P M ∧ "P S ∧ "M S 1 0 0 0 0 1 0 1 0 0 1 0 1 0 0 1 0 0 0 0 1 0 0 0	↑ P 1 Some P is not M. 0 Some S is not M. ∴ Some S is P.	∃ ∃ ∃ ∃ S M P P ∧ "M S 1 1 1 1 0 2 1 1 0 0 3 1 0 1 1 4 1 0 0 0	$ \begin{array}{c cccc} S & & M & S & P \\ \hline 0 & & 1 \\ 0 & & 0 \\ 1 & & 1 \\ 1 & & 0 \end{array} $	Some M is not S. ∴ Some S is P.	∃ ∃ ∃ ∃ ∃ S M P M ∧ "P M ∧ "S S ∧ 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 0 0 1 4 1 0 0 0 0	Some P is not M. Some M is not S. Some S is P. $(\exists x) (Px \land ``Mx)$	∃ ∃ ∃ ∃ ∃ S M P P ∧ "M M ∧ "S S ∧ P 1 1 1 1 0 0 1 2 1 1 0 0 0 0 3 1 0 1 1 0 1 4 1 0 0 0 0 5 0 1 1 0 1 0 6 0 1 0 1 0
Some M is not P. $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	∃ ∃ ∃ P M ∧ "P S ∧ "M S 1 0 0 0 0 1 0 1 0 0 1 0 1 0 0 1 0 0 1 0 0 1 0 0 0 1 0 0	N P 1 Some P is not M. Some S is not M. ∴ Some S is P. 0 (∃x) (Px ∧ ~Mx)	∃ ∃ ∃ ∃ S M P P ∧ "M S 1 1 1 1 0 2 1 1 0 0 3 1 0 1 1 4 1 0 0 0 5 0 1 1 0	$\begin{array}{c c} S \wedge {}^{m}M & S \wedge P \\ \hline 0 & 1 \\ 0 & 0 \\ 1 & 1 \\ 1 & 0 \\ 0 & 0 \\ \end{array}$	Some M is not S. \therefore Some S is P. $(\exists x) (Mx \land "Px)$	∃ ∃ ∃ ∃ ∃ S M P M ∧ "P M ∧ "S S ∧ 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 0 0 1 4 1 0 0 0 0 5 0 1 1 0 1 0	Some P is not M. Some M is not S. Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Mx \land ``Sx)$	∃ ∃ ∃ ∃ ∃ ∃ S M P P ∧ "M M ∧ "S S ∧ P 1 1 1 1 0 0 1 2 1 1 0 0 0 0 3 1 0 1 1 0 1 4 1 0 0 0 0 5 0 1 1 0 1 0 6 0 1 0 0 1 0
Some M is not P.	∃ ∃ ∃ P M ∧ "P S ∧ "M S 1 0 0 0 0 1 0 1 0 0 1 0 1 0 0 1 1 0 0 0 0 1 0 0 1 0 0 0 1 0 0 0	N P 1 Some P is not M. Some S is not M. ∴ Some S is P. 0 (∃x) (Px ∧ ~Mx) 0 (∃x) (Sx ∧ ~Mx)	∃ ∃ ∃ ∃ S M P P ∧ "M S 1 1 1 1 0 2 1 1 0 0 3 1 0 1 1 4 1 0 0 0 5 0 1 1 0 6 0 1 0 0	S ∧ "M S ∧ P 0 1 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Some M is not S. $\therefore \text{ Some S is P.}$ $(\exists x) (Mx \land \text{"Px})$ $(\exists x) (Mx \land \text{"Sx})$	∃ ∃ ∃ ∃ ∃ ∃ S M P M ∧ "P M ∧ "S S ∧ 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 0 0 1 4 1 0 0 0 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0	Some P is not M. Some M is not S. Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Mx \land ``Sx)$ $(\exists x) (\exists x) (Sx \land Px)$	∃ ∃ ∃ ∃ ∃ S M P P ∧ "M M ∧ "S S ∧ P 1 1 1 1 0 0 1 2 1 1 0 0 0 0 3 1 0 1 1 0 1 4 1 0 0 0 0 5 0 1 1 0 1 0 6 0 1 0 1 0
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Some M is not P.	∃ ∃ ∃ P M ∧ "P S ∧ "M S 1 0 0 0 0 1 0 1 0 0 1 0 1 0 0 1 1 0 0 0 0 1 0 0 1 0 0 0 1 0 0 0		∃ ∃ ∃ ∃ S M P P ∧ "M S 1 1 1 1 0 2 1 1 0 0 3 1 0 1 1 4 1 0 0 0 5 0 1 1 0 6 0 1 0 0 7 0 0 1 1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is not S. $\therefore \text{ Some S is P.}$ $(\exists x) (Mx \land \text{"Px})$ $(\exists x) (Mx \land \text{"Sx})$	∃ ∃ ∃ ∃ ∃ ∃ S M P M ∧ "P M ∧ "S S ∧ 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 0 0 1 4 1 0 0 0 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 0 0 0	Some P is not M. Some M is not S. Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Mx \land ``Sx)$ $(\exists x) (\exists x) (Sx \land Px)$	∃ ∃ ∃ ∃ ∃ ∃ S M P P ∧ "M M ∧ "S S ∧ P 1 1 1 1 0 0 1 2 1 1 0 0 0 0 3 1 0 1 1 0 1 4 1 0 0 0 0 0 5 0 1 1 0 1 0 6 0 1 0 0 0 7 0 0 1 1 0 0
Some M is not P.	∃ ∃ ∃ P M ∧ "P S ∧ "M S 1 0 0 0 0 1 0 1 0 0 1 0 1 0 0 0 0 1 0 0 0 1 0 0 1 0 0 0		∃ ∃ ∃ ∃ S M P P ∧ "M S 1 1 1 1 0 2 1 1 0 0 3 1 0 1 1 4 1 0 0 0 5 0 1 1 0 6 0 1 0 0 7 0 0 1 1 8 0 0 0 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Some M is not S. $\therefore \text{ Some S is P.}$ $(\exists x) (Mx \land \text{"Px})$ $(\exists x) (Mx \land \text{"Sx})$	∃ ∃ ∃ ∃ ∃ ∃ S M P M ∧ "P M ∧ "S S ∧ 1 1 1 1 0 0 1 2 1 1 0 1 0 0 3 1 0 1 0 0 1 4 1 0 0 0 0 0 5 0 1 1 0 1 0 6 0 1 0 1 1 0 7 0 0 1 0 0 0 8 0 0 0 0 0 0	Some P is not M. Some M is not S. Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Mx \land ``Sx)$ $(\exists x) (Sx \land Px)$	∃ ∃ ∃ ∃ ∃ ∃ S M P P ∧ M M ∧ S S ∧ P 1 1 1 1 0 0 1 2 1 1 0 0 0 0 3 1 0 1 1 0 1 4 1 0 0 0 0 0 5 0 1 1 0 1 0 6 0 1 0 0 1 0 7 0 0 1 1 0 0 8 0 0 0 0 0
Some M is not P.	∃ ∃ ∃ P M ∧ "P S ∧ "M S 1 0 0 0 0 1 0 1 0 0 1 0 1 0 0 0 0 1 0 0 0 1 0 0 1 0 0 0 0 0 0 0			S \width "M S \width P 0 1 0 0 1 1 1 0 0 0 0 0 0 0 0 0 0 0	Some M is not S. $\therefore \text{ Some S is P.}$ $(\exists x) (Mx \land \text{"Px})$ $(\exists x) (Mx \land \text{"Sx})$	∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ S M P M ∧ "P M ∧ "S S ∧ 1 1 1 1 0 0 0 1 2 1 1 0 1 0 0 1 4 1 0 0 0 0 0 0 5 0 1 1 0 1 0 1 0 6 0 1 0 1 1 1 0 0 0 7 0 0 1 0 0 0 0 0 0 8 0 0 0 0 0 0 0 0 0 Form: III-OOO	Some P is not M. Some M is not S. Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Mx \land ``Sx)$ $(\exists x) (Sx \land Px)$	∃ ∃ ∃ ∃ ∃ ∃ S M P P ∧ M M ∧ S S ∧ P 1 1 1 1 0 0 1 2 1 1 0 0 0 0 3 1 0 1 1 0 1 4 1 0 0 0 0 0 5 0 1 1 0 1 0 6 0 1 0 0 1 0 7 0 0 1 1 0 0 8 0 0 0 0 0 Form: IV-OOO
Some M is not P.	∃ ∃ ∃ P M ∧ "P S ∧ "M S 1 0 0 0 0 1 0 1 0 0 1 0 1 0 0 0 0 1 0 0 0 1 0 0 1 0 0 0 0 0 0 0 **I-OOO **I-OOO **I-OOO** **I-O			S \(\biggriam M \) S \(\cdot P \) 0 1 0 0 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0	Some M is not S. $\therefore \text{ Some S is P.}$ $(\exists x) (Mx \land \text{"Px})$ $(\exists x) (Mx \land \text{"Sx})$	∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃	Some P is not M. Some M is not S. Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Mx \land ``Sx)$ $\therefore (\exists x) (Sx \land Px)$ TP	∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ ∃ S M P P P ∧ M M ∧ S S ∧ P 1 1 1 1 1 0 0 0 1 1 2 1 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
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Some M is not P.	∃ ∃ ∃ P M ∧ "P S ∧ "M S 1 0 0 0 0 1 0 1 0 0 1 0 1 0 0 0 0 1 0 0 0 0 0 0 1 0 0 0 2 I-OOO 3 ∃ 3 ∃ ∃ ∃ ∃ 4 N ∧ "P S ∧ "M S 1 0 0 0 1 0 1 0 0 1 0 0 1 0 0 0 1 0 0 0 0 1 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 </td <td> Some P is not M. </td> <td> </td> <td>S \ ^M S \ P O 1 0 1 1 1 1 1 0 0 0 0 0 1 1 1 1 1 0 0 0 0 1 1 1 1 0 0 1 1 1 0</td> <td>Some M is not S. $\therefore \text{ Some S is P.}$ $(\exists x) (Mx \land \text{`Px})$ $(\exists x) (Mx \land \text{`Sx})$ $\therefore (\exists x) (Sx \land Px)$ $\therefore (\exists x) (Sx \land Px)$ Some M is not P. $\underline{\text{Some M is not S.}}$ $\therefore \text{ Some S is not P.}$ $(\exists x) (Mx \land \text{`Px})$ $(\exists x) (Mx \land \text{`Sx})$</td> <td> </td> <td>Some P is not M. Some M is not S. Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Mx \land ``Sx)$ $(\exists x) (Sx \land Px)$ P Some P is not M. Some M is not S. Some S is not P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Px \land ``Mx)$</td> <td> </td>	Some P is not M.		S \ ^M S \ P O 1 0 1 1 1 1 1 0 0 0 0 0 1 1 1 1 1 0 0 0 0 1 1 1 1 0 0 1 1 1 0	Some M is not S. $\therefore \text{ Some S is P.}$ $(\exists x) (Mx \land \text{`Px})$ $(\exists x) (Mx \land \text{`Sx})$ $\therefore (\exists x) (Sx \land Px)$ $\therefore (\exists x) (Sx \land Px)$ Some M is not P. $\underline{\text{Some M is not S.}}$ $\therefore \text{ Some S is not P.}$ $(\exists x) (Mx \land \text{`Px})$ $(\exists x) (Mx \land \text{`Sx})$		Some P is not M. Some M is not S. Some S is P. $(\exists x) (Px \land ``Mx)$ $(\exists x) (Mx \land ``Sx)$ $(\exists x) (Sx \land Px)$ P Some P is not M. Some M is not S. Some S is not P. $(\exists x) (Px \land ``Mx)$	