

Form: I-AAA (15, 19, 24)						
	∃	∃	∃	∀	∀	∀
	S	M	P	M > P	S > M	S > P
All M is P. All S is M. ∴ All S is P.	1	1	1	1	1	1
	2	1	1	0	0*	1
	3	1	0	1	1	0*
	4	1	0	0	1	0*
(∀x) (Mx > Px)	5	0	1	1	1	1
(∀x) (Sx > Mx)	6	0	1	0	0*	1
∴ (∀x) (Sx > Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	1

Form: II-AAA						
	∃	∃	∃	∀	∀	∀
	S	M	P	P > M	S > M	S > P
All P is M. All S is M. ∴ All S is P.	1	1	1	1	1	1
	2	1	1	0	1	0
	3	1	0	1	0*	0*
	4	1	0	0	1	0*
(∀x) (Px > Mx)	5	0	1	1	1	1
(∀x) (Sx > Mx)	6	0	1	0	1	1
∴ (∀x) (Sx > Px)	7	0	0	1	0*	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: III-AAA						
	∃	∃	∃	∀	∀	∀
	S	M	P	M > P	M > S	S > P
All M is P. All M is S. ∴ All S is P.	1	1	1	1	1	1
	2	1	1	0	0*	1
	3	1	0	1	1	1
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	0*
(∀x) (Mx > Sx)	6	0	1	0	0*	0*
∴ (∀x) (Sx > Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-AAA						
	∃	∃	∃	∀	∀	∀
	S	M	P	P > M	M > S	S > P
All P is M. All M is S. ∴ All S is P.	1	1	1	1	1	1
	2	1	1	0	1	0
	3	1	0	1	0*	1
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	1	0*
(∀x) (Mx > Sx)	6	0	1	0	1	0*
∴ (∀x) (Sx > Px)	7	0	0	1	0*	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: I-AAE						
	∃	∃	∃	∀	∀	∀
	S	M	P	M > P	S > M	S > ~P
All M is P. All S is M. ∴ All S is not P.	1	1	1	1	1	0
	2	1	1	0	0*	1
	3	1	0	1	1	0*
	4	1	0	0	1	0*
(∀x) (Mx > Px)	5	0	1	1	1	1
(∀x) (Sx > Mx)	6	0	1	0	0*	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: II-AAE						
	∃	∃	∃	∀	∀	∀
	S	M	P	P > M	S > M	S > ~P
All P is M. All S is M. ∴ All S is not P.	1	1	1	1	1	0
	2	1	1	0	1	1
	3	1	0	1	0*	0*
	4	1	0	0	1	0*
(∀x) (Px > Mx)	5	0	1	1	1	1
(∀x) (Sx > Mx)	6	0	1	0	1	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	0*	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: III-AAE						
	∃	∃	∃	∀	∀	∀
	S	M	P	M > P	M > S	S > ~P
All M is P. All M is S. ∴ All S is not P.	1	1	1	1	1	0
	2	1	1	0	0*	1
	3	1	0	1	1	0
	4	1	0	0	1	1
(∀x) (Mx > Px)	5	0	1	1	1	0*
(∀x) (Mx > Sx)	6	0	1	0	0*	0*
∴ (∀x) (Sx > ~Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-AAE						
	∃	∃	∃	∀	∀	∀
	S	M	P	P > M	M > S	S > ~P
All P is M. All M is S. ∴ All S is not P.	1	1	1	1	1	0
	2	1	1	0	1	1
	3	1	0	1	0*	1
	4	1	0	0	1	1
(∀x) (Px > Mx)	5	0	1	1	1	0*
(∀x) (Mx > Sx)	6	0	1	0	1	0*
∴ (∀x) (Sx > ~Px)	7	0	0	1	0*	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: I-AAI (24)						
	∃	∃	∃	∀	∀	∃
	S	M	P	M > P	S > M	S ∧ P
All M is P. All S is M. ∴ Some S is P.	1	1	1	1	1	1*
	2	1	1	0	0*	1
	3	1	0	1	1	0*
	4	1	0	0	1	0*
(∀x) (Mx > Px)	5	0	1	1	1	0
(∀x) (Sx > Mx)	6	0	1	0	0*	1
∴ (∃x) (Sx ∧ Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	0*	1	1	1	1	0

Form: II-AAI						
	∃	∃	∃	∀	∀	∃
	S	M	P	P > M	S > M	S ∧ P
All P is M. All S is M. ∴ Some S is P.	1	1	1	1	1	1*
	2	1	1	0	1	0
	3	1	0	1	0*	0*
	4	1	0	0	1	0*
(∀x) (Px > Mx)	5	0	1	1	1	0
(∀x) (Sx > Mx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0*	1
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: III-AAI (19, 24)						
	∃	∃	∃	∀	∀	∃
	S	M	P	M > P	M > S	S ∧ P
All M is P. All M is S. ∴ Some S is P.	1	1	1	1	1	1*
	2	1	1	0	0*	1
	3	1	0	1	1	1*
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	0*
(∀x) (Mx > Sx)	6	0	1	0	0*	0*
∴ (∃x) (Sx ∧ Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	0*	1	1	1	0

Form: IV-AAI (19, 24)						
	∃	∃	∃	∀	∀	∃
	S	M	P	P > M	M > S	S ∧ P
All P is M. All M is S. ∴ Some S is P.	1	1	1	1	1	1*
	2	1	1	0	1	0
	3	1	0	1	0*	1
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	1	0*
(∀x) (Mx > Sx)	6	0	1	0	1	0*
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0*	1
	8	0	0	0	1	0
	1	1	0*	1	1	0

Form: I-AAO						
	∃	∃	∃	∀	∀	∃
	S	M	P	M > P	S > M	S ∧ ~P
All M is P. All S is M. ∴ Some S is not P.	1	1	1	1	1	0
	2	1	1	0	0*	1
	3	1	0	1	1	0*
	4	1	0	0	1	0*
(∀x) (Mx > Px)	5	0	1	1	1	0
(∀x) (Sx > Mx)	6	0	1	0	0*	1
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: II-AAO						
	∃	∃	∃	∀	∀	∃
	S	M	P	P > M	S > M	S ∧ ~P
All P is M. All S is M. ∴ Some S is not P.	1	1	1	1	1	0
	2	1	1	0	1	1*
	3	1	0	1	0*	0*
	4	1	0	0	1	0*
(∀x) (Px > Mx)	5	0	1	1	1	0
(∀x) (Sx > Mx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	0*	1
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: III-AAO						
	∃	∃	∃	∀	∀	∃
	S	M	P	M > P	M > S	S ∧ ~P
All M is P. All M is S. ∴ Some S is not P.	1	1	1	1	1	0
	2	1	1	0	0*	1
	3	1	0	1	1	0
	4	1	0	0	1	1*
(∀x) (Mx > Px)	5	0	1	1	1	0*
(∀x) (Mx > Sx)	6	0	1	0	0*	0*
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-AAO						
	∃	∃	∃	∀	∀	∃
	S	M	P	P > M	M > S	S ∧ ~P
All P is M. All M is S. ∴ Some S is not P.	1	1	1	1	1	0
	2	1	1	0	1	1*
	3	1	0	1	0*	1
	4	1	0	0	1	1*
(∀x) (Px > Mx)	5	0	1	1	1	0*
(∀x) (Mx > Sx)	6	0	1	0	1	0*
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	0*	1
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: I-AEA						
	∃	∃	∃	∀	∀	∀
	S	M	P	M > P	S > ~M	S > P
All M is P. All S is not M. ∴ All S is P.	1	1	1	1	0*	1
	2	1	1	0	0*	0
	3	1	0	1	1	1
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	1
(∀x) (Sx > ~Mx)	6	0	1	0	0*	1
∴ (∀x) (Sx > Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: II-AEA						
	∃	∃	∃	∀	∀	∀
	S	M	P	P > M	S > ~M	S > P
All P is M. All S is not M. ∴ All S is P.	1	1	1	1	0*	1
	2	1	1	0	0*	0
	3	1	0	1	0*	1
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	1	1
(∀x) (Sx > ~Mx)	6	0	1	0	1	1
∴ (∀x) (Sx > Px)	7	0	0	1	0*	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: III-AEA						
	∃	∃	∃	∀	∀	∀
	S	M	P	M > P	M > ~S	S > P
All M is P. All M is not S. ∴ All S is P.	1	1	1	1	0*	1
	2	1	1	0	0*	0
	3	1	0	1	1	1
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	1
(∀x) (Mx > ~Sx)	6	0	1	0	0*	1
∴ (∀x) (Sx > Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-AEA						
	∃	∃	∃	∀	∀	∀
	S	M	P	P > M	M > ~S	S > P
All P is M. All M is not S. ∴ All S is P.	1	1	1	1	0*	1
	2	1	1	0	0*	0
	3	1	0	1	0*	1
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	1	1
(∀x) (Mx > ~Sx)	6	0	1	0	1	1
∴ (∀x) (Sx > Px)	7	0	0	1	0*	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: I-AEE						
	∃	∃	∃	∀	∀	∀
	S	M	P	M > P	S > ~M	S > ~P
All M is P. All S is not M. ∴ All S is not P.	1	1	1	1	0*	0
	2	1	1	0	0*	1
	3	1	0	1	1	0
	4	1	0	0	1	1
(∀x) (Mx > Px)	5	0	1	1	1	1
(∀x) (Sx > ~Mx)	6	0	1	0	0*	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: II-AEE (15, 19, 24)						
	∃	∃	∃	∀	∀	∀
	S	M	P	P > M	S > ~M	S > ~P
All P is M. All S is not M. ∴ All S is not P.	1	1	1	1	0*	0
	2	1	1	0	0*	1
	3	1	0	1	0*	0
	4	1	0	0	1	1
(∀x) (Px > Mx)	5	0	1	1	1	1
(∀x) (Sx > ~Mx)	6	0	1	0	1	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	0*	1
	8	0	0	0	1	1
	1	1	1	1	1	1

Form: III-AEE						
	∃	∃	∃	∀	∀	∀
	S	M	P	M > P	M > ~S	S > ~P
All M is P. All M is not S. ∴ All S is not P.	1	1	1	1	0*	0
	2	1	1	0	0*	1
	3	1	0	1	1	0
	4	1	0	0	1	1
(∀x) (Mx > Px)	5	0	1	1	1	1
(∀x) (Mx > ~Sx)	6	0	1	0	0*	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-AEE (15, 19, 24)						
	∃	∃	∃	∀	∀	∀
	S	M	P	P > M	M > ~S	S > ~P
All P is M. All M is not S. ∴ All S is not P.	1	1	1	1	0*	0
	2	1	1	0	0*	1
	3	1	0	1	0*	0
	4	1	0	0	1	1
(∀x) (Px > Mx)	5	0	1	1	1	1
(∀x) (Mx > ~Sx)	6	0	1	0	1	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	0*	1
	8	0	0	0	1	1
	1	1	1	1	1	1

Form: I-AEI						
	∃	∃	∃	∀	∀	∃
	S	M	P	M > P	S > ~M	S ∧ P
All M is P. All S is not M. ∴ Some S is P.	1	1	1	1	0*	1*
	2	1	1	0	0*	0
	3	1	0	1	1	1*
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	0
(∀x) (Sx > ~Mx)	6	0	1	0	0*	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: II-AEI						
	∃	∃	∃	∀	∀	∃
	S	M	P	P > M	S > ~M	S ∧ P
All P is M. All S is not M. ∴ Some S is P.	1	1	1	1	0*	1*
	2	1	1	0	0*	0
	3	1	0	1	0*	1*
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	1	0
(∀x) (Sx > ~Mx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: III-AEI						
	∃	∃	∃	∀	∀	∃
	S	M	P	M > P	M > ~S	S ∧ P
All M is P. All M is not S. ∴ Some S is P.	1	1	1	1	0*	1*
	2	1	1	0	0*	0
	3	1	0	1	1	1*
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	0
(∀x) (Mx > ~Sx)	6	0	1	0	0*	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-AEI						
	∃	∃	∃	∀	∀	∃
	S	M	P	P > M	M > ~S	S ∧ P
All P is M. All M is not S. ∴ Some S is P.	1	1	1	1	0*	1*
	2	1	1	0	0*	0
	3	1	0	1	0*	1*
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	1	0
(∀x) (Mx > ~Sx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: I-AEO						
	∃	∃	∃	∀	∀	∃
	S	M	P	M > P	S > ~M	S ∧ ~P
All M is P. All S is not M. ∴ Some S is not P.	1	1	1	1	0*	0
	2	1	1	0	0*	1*
	3	1	0	1	1	0
	4	1	0	0	1	1*
(∀x) (Mx > Px)	5	0	1	1	1	0
(∀x) (Sx > ~Mx)	6	0	1	0	0*	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: II-AEO (24)						
	∃	∃	∃	∀	∀	∃
	S	M	P	P > M	S > ~M	S ∧ ~P
All P is M. All S is not M. ∴ Some S is not P.	1	1	1	1	0*	0
	2	1	1	0	0*	1*
	3	1	0	1	0*	0
	4	1	0	0	1	1*
(∀x) (Px > Mx)	5	0	1	1	1	0
(∀x) (Sx > ~Mx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	0*	1	1	1	1	0

Form: III-AEO						
	∃	∃	∃	∀	∀	∃
	S	M	P	M > P	M > ~S	S ∧ ~P
All M is P. All M is not S. ∴ Some S is not P.	1	1	1	1	0*	0
	2	1	1	0	0*	1*
	3	1	0	1	1	0
	4	1	0	0	1	1*
(∀x) (Mx > Px)	5	0	1	1	1	0
(∀x) (Mx > ~Sx)	6	0	1	0	0*	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-AEO (24)						
	∃	∃	∃	∀	∀	∃
	S	M	P	P > M	M > ~S	S ∧ ~P
All P is M. All M is not S. ∴ Some S is not P.	1	1	1	1	0*	0
	2	1	1	0	0*	1*
	3	1	0	1	0*	0
	4	1	0	0	1	1*
(∀x) (Px > Mx)	5	0	1	1	1	0
(∀x) (Mx > ~Sx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	0*	1	1	1	1	0

Form: I-AIA

	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	S ∧ M	S > P
All M is P. Some S is M. ∴ All S is P.	1	1	1	1	1	1
	2	1	1	0	0*	1
	3	1	0	1	1	0
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	0
(∃x) (Sx ∧ Mx)	6	0	1	0	0*	1
∴ (∀x) (Sx > Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: II-AIA

	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	S ∧ M	S > P
All P is M. Some S is M. ∴ All S is P.	1	1	1	1	1	1
	2	1	1	0	1	0
	3	1	0	1	0*	1
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	0	1
(∃x) (Sx ∧ Mx)	6	0	1	0	1	0
∴ (∀x) (Sx > Px)	7	0	0	1	0*	1
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: III-AIA

	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	M ∧ S	S > P
All M is P. Some M is S. ∴ All S is P.	1	1	1	1	1	1
	2	1	1	0	0*	1
	3	1	0	1	0	1
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	0	1
(∃x) (Mx ∧ Sx)	6	0	1	0	0*	1
∴ (∀x) (Sx > Px)	7	0	0	1	0	1
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-AIA

	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	M ∧ S	S > P
All P is M. Some M is S. ∴ All S is P.	1	1	1	1	1	1
	2	1	1	0	1	0
	3	1	0	1	0*	1
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	0	1
(∃x) (Mx ∧ Sx)	6	0	1	0	1	0
∴ (∀x) (Sx > Px)	7	0	0	1	0*	1
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: I-AIE

	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	S ∧ M	S > ~P
All M is P. Some S is M. ∴ All S is not P.	1	1	1	1	1	0
	2	1	1	0	0*	1
	3	1	0	1	1	0
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	0
(∃x) (Sx ∧ Mx)	6	0	1	0	0*	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: II-AIE

	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	S ∧ M	S > ~P
All P is M. Some S is M. ∴ All S is not P.	1	1	1	1	1	0
	2	1	1	0	1	1
	3	1	0	1	0*	0
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	0	1
(∃x) (Sx ∧ Mx)	6	0	1	0	1	0
∴ (∀x) (Sx > ~Px)	7	0	0	1	0*	1
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: III-AIE

	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	M ∧ S	S > ~P
All M is P. Some M is S. ∴ All S is not P.	1	1	1	1	1	0
	2	1	1	0	0*	1
	3	1	0	1	0	0
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	0	1
(∃x) (Mx ∧ Sx)	6	0	1	0	0*	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	0	1
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-AIE

	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	M ∧ S	S > ~P
All P is M. Some M is S. ∴ All S is not P.	1	1	1	1	1	0
	2	1	1	0	1	1
	3	1	0	1	0*	0
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	0	1
(∃x) (Mx ∧ Sx)	6	0	1	0	1	0
∴ (∀x) (Sx > ~Px)	7	0	0	1	0*	1
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: I-AII (15, 19, 24)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	S ∧ M	S ∧ P
All M is P. Some S is M. ∴ Some S is P.	1	1	1	1	1	1*
	2	1	1	0	0*	1
	3	1	0	1	1	0
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	0
(∃x) (Sx ∧ Mx)	6	0	1	0	0*	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	0	0

Form: II-AII

	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	S ∧ M	S ∧ P
All P is M. Some S is M. ∴ Some S is P.	1	1	1	1	1	1*
	2	1	1	0	1	0
	3	1	0	1	0*	1*
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	0	0
(∃x) (Sx ∧ Mx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: III-AII (15, 19, 24)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	M ∧ S	S ∧ P
All M is P. Some M is S. ∴ Some S is P.	1	1	1	1	1	1*
	2	1	1	0	0*	1
	3	1	0	1	0	0
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	0	0
(∃x) (Mx ∧ Sx)	6	0	1	0	0*	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0	0
	8	0	0	0	1	0
	1	1	1	1	0	0

Form: IV-AII

	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	M ∧ S	S ∧ P
All P is M. Some M is S. ∴ Some S is P.	1	1	1	1	1	1*
	2	1	1	0	1	0
	3	1	0	1	0*	1*
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	0	0
(∃x) (Mx ∧ Sx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: I-AIO

	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	S ∧ M	S ∧ ~P
All M is P. Some S is M. ∴ Some S is not P.	1	1	1	1	1	0
	2	1	1	0	0*	1*
	3	1	0	1	1	0
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	0
(∃x) (Sx ∧ Mx)	6	0	1	0	0*	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: II-AIO

	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	S ∧ M	S ∧ ~P
All P is M. Some S is M. ∴ Some S is not P.	1	1	1	1	1	0
	2	1	1	0	1	1*
	3	1	0	1	0*	0
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	0	0
(∃x) (Sx ∧ Mx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: III-AIO

	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	M ∧ S	S ∧ ~P
All M is P. Some M is S. ∴ Some S is not P.	1	1	1	1	1	0
	2	1	1	0	0*	1*
	3	1	0	1	0	0
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	0	0
(∃x) (Mx ∧ Sx)	6	0	1	0	0*	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	0	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-AIO

	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	M ∧ S	S ∧ ~P
All P is M. Some M is S. ∴ Some S is not P.	1	1	1	1	1	0
	2	1	1	0	1	1*
	3	1	0	1	0*	0
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	0	0
(∃x) (Mx ∧ Sx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: I-AOA						
	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	S ∧ ~M	S > P
All M is P. Some S is not M.	1	1	1	1	0	1
∴ All S is P.	2	1	1	0	0*	0
	3	1	0	1	1	1
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	0	1
(∃x) (Sx ∧ ~Mx)	6	0	1	0	0*	0
∴ (∀x) (Sx > Px)	7	0	0	1	0	1
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: II-AOA						
	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	S ∧ ~M	S > P
All P is M. Some S is not M.	1	1	1	1	0	1
∴ All S is P.	2	1	1	0	1	0
	3	1	0	1	0*	1
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	0	1
(∃x) (Sx ∧ ~Mx)	6	0	1	0	1	0
∴ (∀x) (Sx > Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: III-AOA						
	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	M ∧ ~S	S > P
All M is P. Some M is not S.	1	1	1	1	0	1
∴ All S is P.	2	1	1	0	0*	0
	3	1	0	1	0	1
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	1
(∃x) (Mx ∧ ~Sx)	6	0	1	0	0*	1
∴ (∀x) (Sx > Px)	7	0	0	1	0	1
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-AOA						
	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	M ∧ ~S	S > P
All P is M. Some M is not S.	1	1	1	1	0	1
∴ All S is P.	2	1	1	0	1	0
	3	1	0	1	0*	0
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	1	1
(∃x) (Mx ∧ ~Sx)	6	0	1	0	1	1
∴ (∀x) (Sx > Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: I-AOE						
	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	S ∧ ~M	S > ~P
All M is P. Some S is not M.	1	1	1	1	0	0
∴ All S is not P.	2	1	1	0	0*	0
	3	1	0	1	1	0
	4	1	0	0	1	1
(∀x) (Mx > Px)	5	0	1	1	0	1
(∃x) (Sx ∧ ~Mx)	6	0	1	0	0*	0
∴ (∀x) (Sx > ~Px)	7	0	0	1	0	1
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: II-AOE						
	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	S ∧ ~M	S > ~P
All P is M. Some S is not M.	1	1	1	1	0	0
∴ All S is not P.	2	1	1	0	1	0
	3	1	0	1	0*	1
	4	1	0	0	1	1
(∀x) (Px > Mx)	5	0	1	1	0	1
(∃x) (Sx ∧ ~Mx)	6	0	1	0	1	0
∴ (∀x) (Sx > ~Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: III-AOE						
	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	M ∧ ~S	S > ~P
All M is P. Some M is not S.	1	1	1	1	0	0
∴ All S is not P.	2	1	1	0	0*	0
	3	1	0	1	0	0
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	1
(∃x) (Mx ∧ ~Sx)	6	0	1	0	0*	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	0	1
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-AOE						
	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	M ∧ ~S	S > ~P
All P is M. Some M is not S.	1	1	1	1	0	0
∴ All S is not P.	2	1	1	0	1	0
	3	1	0	1	0*	0
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	1	1
(∃x) (Mx ∧ ~Sx)	6	0	1	0	1	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: I-AOI						
	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	S ∧ ~M	S ∧ P
All M is P. Some S is not M.	1	1	1	1	0	1*
∴ Some S is P.	2	1	1	0	0*	0
	3	1	0	1	1	1*
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	0	0
(∃x) (Sx ∧ ~Mx)	6	0	1	0	0*	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: II-AOI						
	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	S ∧ ~M	S ∧ P
All P is M. Some S is not M.	1	1	1	1	0	1*
∴ Some S is P.	2	1	1	0	1	0
	3	1	0	1	0*	1
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	0	0
(∃x) (Sx ∧ ~Mx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: III-AOI						
	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	M ∧ ~S	S ∧ P
All M is P. Some M is not S.	1	1	1	1	0	1*
∴ Some S is P.	2	1	1	0	0*	0
	3	1	0	1	0	1*
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	0
(∃x) (Mx ∧ ~Sx)	6	0	1	0	0*	1
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-AOI						
	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	M ∧ ~S	S ∧ P
All P is M. Some M is not S.	1	1	1	1	0	1*
∴ Some S is P.	2	1	1	0	1	0
	3	1	0	1	0*	0
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	1	0
(∃x) (Mx ∧ ~Sx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: I-AOO						
	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	S ∧ ~M	S ∧ ~P
All M is P. Some S is not M.	1	1	1	1	0	0
∴ Some S is not P.	2	1	1	0	0*	0
	3	1	0	1	1	0
	4	1	0	0	1	1*
(∀x) (Mx > Px)	5	0	1	1	0	0
(∃x) (Sx ∧ ~Mx)	6	0	1	0	0*	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	0	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: II-AOO (15, 19, 24)						
	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	S ∧ ~M	S ∧ ~P
All P is M. Some S is not M.	1	1	1	1	0	0
∴ Some S is not P.	2	1	1	0	1	0
	3	1	0	1	0*	1
	4	1	0	0	1	1*
(∀x) (Px > Mx)	5	0	1	1	0	0
(∃x) (Sx ∧ ~Mx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	0	0

Form: III-AOO						
	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	M ∧ ~S	S ∧ ~P
All M is P. Some M is not S.	1	1	1	1	0	0
∴ Some S is not P.	2	1	1	0	0*	0
	3	1	0	1	0	0
	4	1	0	0	1	0
(∀x) (Mx > Px)	5	0	1	1	1	0
(∃x) (Mx ∧ ~Sx)	6	0	1	0	0*	1
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	0	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-AOO						
	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	M ∧ ~S	S ∧ ~P
All P is M. Some M is not S.	1	1	1	1	0	0
∴ Some S is not P.	2	1	1	0	1	0
	3	1	0	1	0*	0
	4	1	0	0	1	0
(∀x) (Px > Mx)	5	0	1	1	1	0
(∃x) (Mx ∧ ~Sx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	0*	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: I-EAA						
	∃	∃	∃	∀	∀	∀
	S	M	P	M > ~P	S > M	S > P
All M is not P. All S is M. ∴ All S is P.	1	1	1	0*	1	1
	2	1	1	0	1	0
	3	1	0	1	0*	1
	4	1	0	0	0*	0
(∀x) (Mx > ~Px)	5	0	1	1	0*	1
(∀x) (Sx > Mx)	6	0	1	0	1	1
∴ (∀x) (Sx > Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: II-EAA						
	∃	∃	∃	∀	∀	∀
	S	M	P	P > ~M	S > M	S > P
All P is not M. All S is M. ∴ All S is P.	1	1	1	0*	1	1
	2	1	1	0	1	0
	3	1	0	1	0*	1
	4	1	0	0	0*	0
(∀x) (Px > ~Mx)	5	0	1	1	0*	1
(∀x) (Sx > Mx)	6	0	1	0	1	1
∴ (∀x) (Sx > Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: III-EAA						
	∃	∃	∃	∀	∀	∀
	S	M	P	M > ~P	M > S	S > P
All M is not P. All M is S. ∴ All S is P.	1	1	1	0*	1	1
	2	1	1	0	1	0
	3	1	0	1	1	1
	4	1	0	0	1	0
(∀x) (Mx > ~Px)	5	0	1	1	0*	0*
(∀x) (Mx > Sx)	6	0	1	0	1	0*
∴ (∀x) (Sx > Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-EAA						
	∃	∃	∃	∀	∀	∀
	S	M	P	P > ~M	M > S	S > P
All P is not M. All M is S. ∴ All S is P.	1	1	1	0*	1	1
	2	1	1	0	1	0
	3	1	0	1	1	1
	4	1	0	0	1	0
(∀x) (Px > ~Mx)	5	0	1	1	0*	0*
(∀x) (Mx > Sx)	6	0	1	0	1	0*
∴ (∀x) (Sx > Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: I-EAE (15, 19, 24)						
	∃	∃	∃	∀	∀	∀
	S	M	P	M > ~P	S > M	S > ~P
All M is not P. All S is M. ∴ All S is not P.	1	1	1	0*	1	0
	2	1	1	0	1	1
	3	1	0	1	0*	0
	4	1	0	0	0*	1
(∀x) (Mx > ~Px)	5	0	1	1	0*	1
(∀x) (Sx > Mx)	6	0	1	0	1	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	1

Form: II-EAE (15, 19, 24)						
	∃	∃	∃	∀	∀	∀
	S	M	P	P > ~M	S > M	S > ~P
All P is not M. All S is M. ∴ All S is not P.	1	1	1	0*	1	0
	2	1	1	0	1	1
	3	1	0	1	0*	0
	4	1	0	0	0*	1
(∀x) (Px > ~Mx)	5	0	1	1	0*	1
(∀x) (Sx > Mx)	6	0	1	0	1	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	1

Form: III-EAE						
	∃	∃	∃	∀	∀	∀
	S	M	P	M > ~P	M > S	S > ~P
All M is not P. All M is S. ∴ All S is not P.	1	1	1	0*	1	0
	2	1	1	0	1	1
	3	1	0	1	1	0
	4	1	0	0	1	1
(∀x) (Mx > ~Px)	5	0	1	1	0*	0*
(∀x) (Mx > Sx)	6	0	1	0	1	0*
∴ (∀x) (Sx > ~Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-EAE						
	∃	∃	∃	∀	∀	∀
	S	M	P	P > ~M	M > S	S > ~P
All P is not M. All M is S. ∴ All S is not P.	1	1	1	0*	1	0
	2	1	1	0	1	1
	3	1	0	1	1	0
	4	1	0	0	1	1
(∀x) (Px > ~Mx)	5	0	1	1	0*	0*
(∀x) (Mx > Sx)	6	0	1	0	1	0*
∴ (∀x) (Sx > ~Px)	7	0	0	1	1	1
	8	0	0	0	1	1
	1	1	1	1	1	0

Form: I-EAI						
	∃	∃	∃	∀	∀	∃
	S	M	P	M > ~P	S > M	S ∧ P
All M is not P. All S is M. ∴ Some S is P.	1	1	1	0*	1	1*
	2	1	1	0	1	0
	3	1	0	1	0*	1*
	4	1	0	0	0*	0
(∀x) (Mx > ~Px)	5	0	1	1	0*	0
(∀x) (Sx > Mx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: II-EAI						
	∃	∃	∃	∀	∀	∃
	S	M	P	P > ~M	S > M	S ∧ P
All P is not M. All S is M. ∴ Some S is P.	1	1	1	0*	1	1*
	2	1	1	0	1	0
	3	1	0	1	0*	1*
	4	1	0	0	0*	0
(∀x) (Px > ~Mx)	5	0	1	1	0*	0
(∀x) (Sx > Mx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: III-EAI						
	∃	∃	∃	∀	∀	∃
	S	M	P	M > ~P	M > S	S ∧ P
All M is not P. All M is S. ∴ Some S is P.	1	1	1	0*	1	1*
	2	1	1	0	1	0
	3	1	0	1	1	1*
	4	1	0	0	1	0
(∀x) (Mx > ~Px)	5	0	1	1	0*	0*
(∀x) (Mx > Sx)	6	0	1	0	1	0*
∴ (∃x) (Sx ∧ Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-EAI						
	∃	∃	∃	∀	∀	∃
	S	M	P	P > ~M	M > S	S ∧ P
All P is not M. All M is S. ∴ Some S is P.	1	1	1	0*	1	1*
	2	1	1	0	1	0
	3	1	0	1	1	1*
	4	1	0	0	1	0
(∀x) (Px > ~Mx)	5	0	1	1	0*	0*
(∀x) (Mx > Sx)	6	0	1	0	1	0*
∴ (∃x) (Sx ∧ Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	1	1	1	1	0

Form: I-EAO (24)						
	∃	∃	∃	∀	∀	∃
	S	M	P	M > ~P	S > M	S ∧ ~P
All M is not P. All S is M. ∴ Some S is not P.	1	1	1	0*	1	0
	2	1	1	0	1	1*
	3	1	0	1	0*	0
	4	1	0	0	0*	1*
(∀x) (Mx > ~Px)	5	0	1	1	0*	0
(∀x) (Sx > Mx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	0*	1	1	1	1	0

Form: II-EAO (24)						
	∃	∃	∃	∀	∀	∃
	S	M	P	P > ~M	S > M	S ∧ ~P
All P is not M. All S is M. ∴ Some S is not P.	1	1	1	0*	1	0
	2	1	1	0	1	1*
	3	1	0	1	0*	0
	4	1	0	0	0*	1*
(∀x) (Px > ~Mx)	5	0	1	1	0*	0
(∀x) (Sx > Mx)	6	0	1	0	1	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	0*	1	1	1	1	0

Form: III-EAO (19, 24)						
	∃	∃	∃	∀	∀	∃
	S	M	P	M > ~P	M > S	S ∧ ~P
All M is not P. All M is S. ∴ Some S is not P.	1	1	1	0*	1	0
	2	1	1	0	1	1*
	3	1	0	1	1	0
	4	1	0	0	1	1*
(∀x) (Mx > ~Px)	5	0	1	1	0*	0*
(∀x) (Mx > Sx)	6	0	1	0	1	0*
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	0*	1	1	1	0

Form: IV-EAO (19, 24)						
	∃	∃	∃	∀	∀	∃
	S	M	P	P > ~M	M > S	S ∧ ~P
All P is not M. All M is S. ∴ Some S is not P.	1	1	1	0*	1	0
	2	1	1	0	1	1*
	3	1	0	1	1	0
	4	1	0	0	1	1*
(∀x) (Px > ~Mx)	5	0	1	1	0*	0*
(∀x) (Mx > Sx)	6	0	1	0	1	0*
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	1	0
	8	0	0	0	1	0
	1	0*	1	1	1	0









Form: I-IAA							
	∃	∃	∃	∃	∀	∀	
	S	M	P	M ∧ P	S > M	S > P	
Some M is P. All S is M.	1	1	1	1	1	1	
∴ All S is P.	3	1	0	1	0	0*	1
	4	1	0	0	0	0*	0
$(\exists x)(Mx \wedge Px)$	5	0	1	1	1	1	
$(\forall x)(Sx > Mx)$	6	0	1	0	0	1	
∴ $(\forall x)(Sx > Px)$	7	0	0	1	0	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: II-IAA							
	∃	∃	∃	∃	∀	∀	
	S	M	P	P ∧ M	S > M	S > P	
Some P is M. All S is M.	1	1	1	1	1	1	
∴ All S is P.	3	1	0	1	0	0*	1
	4	1	0	0	0	0*	0
$(\exists x)(Px \wedge Mx)$	5	0	1	1	1	1	
$(\forall x)(Sx > Mx)$	6	0	1	0	0	1	
∴ $(\forall x)(Sx > Px)$	7	0	0	1	0	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: III-IAA							
	∃	∃	∃	∃	∀	∀	
	S	M	P	M ∧ P	M > S	S > P	
Some M is P. All M is S.	1	1	1	1	1	1	
∴ All S is P.	3	1	0	1	0	1	1
	4	1	0	0	0	1	0
$(\exists x)(Mx \wedge Px)$	5	0	1	1	1	0*	1
$(\forall x)(Mx > Sx)$	6	0	1	0	0	0*	1
∴ $(\forall x)(Sx > Px)$	7	0	0	1	0	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: IV-IAA							
	∃	∃	∃	∃	∀	∀	
	S	M	P	P ∧ M	M > S	S > P	
Some P is M. All M is S.	1	1	1	1	1	1	
∴ All S is P.	3	1	0	1	0	1	1
	4	1	0	0	0	1	0
$(\exists x)(Px \wedge Mx)$	5	0	1	1	1	0*	1
$(\forall x)(Mx > Sx)$	6	0	1	0	0	0*	1
∴ $(\forall x)(Sx > Px)$	7	0	0	1	0	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: I-IAE							
	∃	∃	∃	∃	∀	∀	
	S	M	P	M ∧ P	S > M	S > ~P	
Some M is P. All S is M.	1	1	1	1	1	0	
∴ All S is not P.	3	1	0	1	0	0*	0
	4	1	0	0	0	0*	1
$(\exists x)(Mx \wedge Px)$	5	0	1	1	1	1	
$(\forall x)(Sx > Mx)$	6	0	1	0	0	1	
∴ $(\forall x)(Sx > ~Px)$	7	0	0	1	0	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: II-IAE							
	∃	∃	∃	∃	∀	∀	
	S	M	P	P ∧ M	S > M	S > ~P	
Some P is M. All S is M.	1	1	1	1	1	0	
∴ All S is not P.	3	1	0	1	0	0*	0
	4	1	0	0	0	0*	1
$(\exists x)(Px \wedge Mx)$	5	0	1	1	1	1	
$(\forall x)(Sx > Mx)$	6	0	1	0	0	1	
∴ $(\forall x)(Sx > ~Px)$	7	0	0	1	0	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: III-IAE							
	∃	∃	∃	∃	∀	∀	
	S	M	P	M ∧ P	M > S	S > ~P	
Some M is P. All M is S.	1	1	1	1	1	0	
∴ All S is not P.	3	1	0	1	0	1	1
	4	1	0	0	0	1	0
$(\exists x)(Mx \wedge Px)$	5	0	1	1	1	0*	1
$(\forall x)(Mx > Sx)$	6	0	1	0	0	0*	1
∴ $(\forall x)(Sx > ~Px)$	7	0	0	1	0	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: IV-IAE							
	∃	∃	∃	∃	∀	∀	
	S	M	P	P ∧ M	M > S	S > ~P	
Some P is M. All M is S.	1	1	1	1	1	0	
∴ All S is not P.	3	1	0	1	0	1	0
	4	1	0	0	0	1	1
$(\exists x)(Px \wedge Mx)$	5	0	1	1	1	0*	1
$(\forall x)(Mx > Sx)$	6	0	1	0	0	0*	1
∴ $(\forall x)(Sx > ~Px)$	7	0	0	1	0	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: I-IAI							
	∃	∃	∃	∃	∀	∃	
	S	M	P	M ∧ P	S > M	S ∧ P	
Some M is P. All S is M.	1	1	1	1	1	1*	
∴ Some S is P.	3	1	0	1	0	0*	1*
	4	1	0	0	0	0*	0
$(\exists x)(Mx \wedge Px)$	5	0	1	1	1	0	
$(\forall x)(Sx > Mx)$	6	0	1	0	0	1	0
∴ $(\exists x)(Sx \wedge Px)$	7	0	0	1	0	1	0
	8	0	0	0	0	1	0
	1	1	1	1	1	0	

Form: II-IAI							
	∃	∃	∃	∃	∀	∃	
	S	M	P	P ∧ M	S > M	S ∧ P	
Some P is M. All S is M.	1	1	1	1	1	1*	
∴ Some S is P.	3	1	0	1	0	0*	1*
	4	1	0	0	0	0*	0
$(\exists x)(Px \wedge Mx)$	5	0	1	1	1	0	
$(\forall x)(Sx > Mx)$	6	0	1	0	0	1	0
∴ $(\exists x)(Sx \wedge Px)$	7	0	0	1	0	1	0
	8	0	0	0	0	1	0
	1	1	1	1	1	0	

Form: III-IAI (15, 19, 24)							
	∃	∃	∃	∃	∀	∃	
	S	M	P	M ∧ P	M > S	S ∧ P	
Some M is P. All M is S.	1	1	1	1	1	1*	
∴ Some S is P.	3	1	0	1	0	1	1*
	4	1	0	0	0	1	0
$(\exists x)(Mx \wedge Px)$	5	0	1	1	1	0*	0
$(\forall x)(Mx > Sx)$	6	0	1	0	0	0*	0
∴ $(\exists x)(Sx \wedge Px)$	7	0	0	1	0	1	0
	8	0	0	0	0	1	0
	1	1	1	0	1	0	

Form: IV-IAI (15, 19, 24)							
	∃	∃	∃	∃	∀	∃	
	S	M	P	P ∧ M	M > S	S ∧ P	
Some P is M. All M is S.	1	1	1	1	1	1*	
∴ Some S is P.	3	1	0	1	0	1	1*
	4	1	0	0	0	1	0
$(\exists x)(Px \wedge Mx)$	5	0	1	1	1	0*	0
$(\forall x)(Mx > Sx)$	6	0	1	0	0	0*	0
∴ $(\exists x)(Sx \wedge Px)$	7	0	0	1	0	1	0
	8	0	0	0	0	1	0
	1	1	1	0	1	0	

Form: I-IAO							
	∃	∃	∃	∃	∀	∃	
	S	M	P	M ∧ P	S > M	S ∧ ~P	
Some M is P. All S is M.	1	1	1	1	1	0	
∴ Some S is not P.	2	1	1	0	0	1	1*
	3	1	0	1	0	0*	0
	4	1	0	0	0	0*	1*
$(\exists x)(Mx \wedge Px)$	5	0	1	1	1	0	
$(\forall x)(Sx > Mx)$	6	0	1	0	0	1	0
∴ $(\exists x)(Sx \wedge ~Px)$	7	0	0	1	0	1	0
	8	0	0	0	0	1	0
	1	1	1	1	1	0	

Form: II-IAO							
	∃	∃	∃	∃	∀	∃	
	S	M	P	P ∧ M	S > M	S ∧ ~P	
Some P is M. All S is M.	1	1	1	1	1	0	
∴ Some S is not P.	2	1	1	0	0	1	1*
	3	1	0	1	0	0*	0
	4	1	0	0	0	0*	1*
$(\exists x)(Px \wedge Mx)$	5	0	1	1	1	0	
$(\forall x)(Sx > Mx)$	6	0	1	0	0	1	0
∴ $(\exists x)(Sx \wedge ~Px)$	7	0	0	1	0	1	0
	8	0	0	0	0	1	0
	1	1	1	1	1	0	

Form: III-IAO							
	∃	∃	∃	∃	∀	∃	
	S	M	P	M ∧ P	M > S	S ∧ ~P	
Some M is P. All M is S.	1	1	1	1	1	0	
∴ Some S is not P.	2	1	1	0	0	1	1*
	3	1	0	1	0	1	0
	4	1	0	0	0	1	1*
$(\exists x)(Mx \wedge Px)$	5	0	1	1	1	0*	0
$(\forall x)(Mx > Sx)$	6	0	1	0	0	0*	0
∴ $(\exists x)(Sx \wedge ~Px)$	7	0	0	1	0	1	0
	8	0	0	0	0	1	0
	1	1	1	1	1	0	

Form: IV-IAO							
	∃	∃	∃	∃	∀	∃	
	S	M	P	P ∧ M	M > S	S ∧ ~P	
Some P is M. All M is S.	1	1	1	1	1	0	
∴ Some S is not P.	2	1	1	0	0	1	1*
	3	1	0	1	0	1	0
	4	1	0	0	0	1	1*
$(\exists x)(Px \wedge Mx)$	5	0	1	1	1	0*	0
$(\forall x)(Mx > Sx)$	6	0	1	0	0	0*	0
∴ $(\exists x)(Sx \wedge ~Px)$	7	0	0	1	0	1	0
	8	0	0	0	0	1	0
	1	1	1	1	1	0	





Form: I-IOA						
	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ P	S ∧ ~M	S > P
Some M is P. Some S is not M. ∴ All S is P.	1	1	1	1	0	1
	2	1	1	0	0	0
	3	1	0	1	0	1
	4	1	0	0	0	0
(∃x)(Mx ∧ Px)	5	0	1	1	0	1
(∃x)(Sx ∧ ~Mx)	6	0	1	0	0	1
∴ (∀x)(Sx > Px)	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: II-IOA						
	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ M	S ∧ ~M	S > P
Some P is M. Some S is not M. ∴ All S is P.	1	1	1	1	0	1
	2	1	1	0	0	0
	3	1	0	1	0	1
	4	1	0	0	0	0
(∃x)(Px ∧ Mx)	5	0	1	1	0	1
(∃x)(Sx ∧ ~Mx)	6	0	1	0	0	1
∴ (∀x)(Sx > Px)	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: III-IOA						
	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ P	M ∧ ~S	S > P
Some M is P. Some M is not S. ∴ All S is P.	1	1	1	1	0	1
	2	1	1	0	0	0
	3	1	0	1	0	1
	4	1	0	0	0	0
(∃x)(Mx ∧ Px)	5	0	1	1	1	1
(∃x)(Mx ∧ ~Sx)	6	0	1	0	0	1
∴ (∀x)(Sx > Px)	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: IV-IOA						
	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ M	M ∧ ~S	S > P
Some P is M. Some M is not S. ∴ All S is P.	1	1	1	1	0	1
	2	1	1	0	0	0
	3	1	0	1	0	1
	4	1	0	0	0	0
(∃x)(Px ∧ Mx)	5	0	1	1	1	1
(∃x)(Mx ∧ ~Sx)	6	0	1	0	0	1
∴ (∀x)(Sx > Px)	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: I-IOE						
	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ P	S ∧ ~M	S > ~P
Some M is P. Some S is not M. ∴ All S is not P.	1	1	1	1	0	0
	2	1	1	0	0	1
	3	1	0	1	0	0
	4	1	0	0	0	1
(∃x)(Mx ∧ Px)	5	0	1	1	0	1
(∃x)(Sx ∧ ~Mx)	6	0	1	0	0	1
∴ (∀x)(Sx > ~Px)	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: II-IOE						
	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ M	S ∧ ~M	S > ~P
Some P is M. Some S is not M. ∴ All S is not P.	1	1	1	1	0	0
	2	1	1	0	0	1
	3	1	0	1	0	0
	4	1	0	0	0	1
(∃x)(Px ∧ Mx)	5	0	1	1	0	1
(∃x)(Sx ∧ ~Mx)	6	0	1	0	0	1
∴ (∀x)(Sx > ~Px)	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: III-IOE						
	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ P	M ∧ ~S	S > ~P
Some M is P. Some M is not S. ∴ All S is not P.	1	1	1	1	0	0
	2	1	1	0	0	1
	3	1	0	1	0	0
	4	1	0	0	0	1
(∃x)(Mx ∧ Px)	5	0	1	1	1	1
(∃x)(Mx ∧ ~Sx)	6	0	1	0	0	1
∴ (∀x)(Sx > ~Px)	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: IV-IOE						
	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ M	M ∧ ~S	S > ~P
Some P is M. Some M is not S. ∴ All S is not P.	1	1	1	1	0	0
	2	1	1	0	0	1
	3	1	0	1	0	0
	4	1	0	0	0	1
(∃x)(Px ∧ Mx)	5	0	1	1	1	1
(∃x)(Mx ∧ ~Sx)	6	0	1	0	0	1
∴ (∀x)(Sx > ~Px)	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: I-IOI						
	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ P	S ∧ ~M	S ∧ P
Some M is P. Some S is not M. ∴ Some S is P.	1	1	1	1	0	1*
	2	1	1	0	0	0
	3	1	0	1	0	1*
	4	1	0	0	0	0
(∃x)(Mx ∧ Px)	5	0	1	1	0	0
(∃x)(Sx ∧ ~Mx)	6	0	1	0	0	0
∴ (∃x)(Sx ∧ Px)	7	0	0	1	0	0
	8	0	0	0	0	0
	1	1	1	1	1	0

Form: II-IOI						
	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ M	S ∧ ~M	S ∧ P
Some P is M. Some S is not M. ∴ Some S is P.	1	1	1	1	0	1*
	2	1	1	0	0	0
	3	1	0	1	0	1*
	4	1	0	0	0	0
(∃x)(Px ∧ Mx)	5	0	1	1	0	0
(∃x)(Sx ∧ ~Mx)	6	0	1	0	0	0
∴ (∃x)(Sx ∧ Px)	7	0	0	1	0	0
	8	0	0	0	0	0
	1	1	1	1	1	0

Form: III-IOI						
	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ P	M ∧ ~S	S ∧ P
Some M is P. Some M is not S. ∴ Some S is P.	1	1	1	1	0	1*
	2	1	1	0	0	0
	3	1	0	1	0	1*
	4	1	0	0	0	0
(∃x)(Mx ∧ Px)	5	0	1	1	1	0
(∃x)(Mx ∧ ~Sx)	6	0	1	0	0	0
∴ (∃x)(Sx ∧ Px)	7	0	0	1	0	0
	8	0	0	0	0	0
	1	1	1	1	1	0

Form: IV-IOI						
	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ M	M ∧ ~S	S ∧ P
Some P is M. Some M is not S. ∴ Some S is P.	1	1	1	1	0	1*
	2	1	1	0	0	0
	3	1	0	1	0	1*
	4	1	0	0	0	0
(∃x)(Px ∧ Mx)	5	0	1	1	1	0
(∃x)(Mx ∧ ~Sx)	6	0	1	0	0	0
∴ (∃x)(Sx ∧ Px)	7	0	0	1	0	0
	8	0	0	0	0	0
	1	1	1	1	1	0

Form: I-IOO						
	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ P	S ∧ ~M	S ∧ ~P
Some M is P. Some S is not M. ∴ Some S is not P.	1	1	1	1	0	0
	2	1	1	0	0	1*
	3	1	0	1	0	0
	4	1	0	0	0	1*
(∃x)(Mx ∧ Px)	5	0	1	1	0	0
(∃x)(Sx ∧ ~Mx)	6	0	1	0	0	0
∴ (∃x)(Sx ∧ ~Px)	7	0	0	1	0	0
	8	0	0	0	0	0
	1	1	1	1	1	0

Form: II-IOO						
	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ M	S ∧ ~M	S ∧ ~P
Some P is M. Some S is not M. ∴ Some S is not P.	1	1	1	1	0	0
	2	1	1	0	0	1*
	3	1	0	1	0	0
	4	1	0	0	0	1*
(∃x)(Px ∧ Mx)	5	0	1	1	0	0
(∃x)(Sx ∧ ~Mx)	6	0	1	0	0	0
∴ (∃x)(Sx ∧ ~Px)	7	0	0	1	0	0
	8	0	0	0	0	0
	1	1	1	1	1	0

Form: III-IOO						
	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ P	M ∧ ~S	S ∧ ~P
Some M is P. Some M is not S. ∴ Some S is not P.	1	1	1	1	0	0
	2	1	1	0	0	1*
	3	1	0	1	0	0
	4	1	0	0	0	1*
(∃x)(Mx ∧ Px)	5	0	1	1	1	0
(∃x)(Mx ∧ ~Sx)	6	0	1	0	0	0
∴ (∃x)(Sx ∧ ~Px)	7	0	0	1	0	0
	8	0	0	0	0	0
	1	1	1	1	1	0

Form: IV-IOO						
	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ M	M ∧ ~S	S ∧ ~P
Some P is M. Some M is not S. ∴ Some S is not P.	1	1	1	1	0	0
	2	1	1	0	0	1*
	3	1	0	1	0	0
	4	1	0	0	0	1*
(∃x)(Px ∧ Mx)	5	0	1	1	1	0
(∃x)(Mx ∧ ~Sx)	6	0	1	0	0	0
∴ (∃x)(Sx ∧ ~Px)	7	0	0	1	0	0
	8	0	0	0	0	0
	1	1	1	1	1	0

Form: I-OAA							
	∃	∃	∃	∃	∀	∀	
	S	M	P	$M \wedge \sim P$	$S > M$	$S > P$	
Some M is not P. <u>All S is M.</u>	1	1	1	0	1	1	
∴ All S is P.	3	1	0	1	0	0*	1
	4	1	0	0	0	0*	0
$(\exists x)(Mx \wedge \sim Px)$	5	0	1	1	0	1	1
$(\forall x)(Sx > Mx)$	6	0	1	0	1	1	
∴ $(\forall x)(Sx > Px)$	7	0	0	1	0	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: II-OAA							
	∃	∃	∃	∃	∀	∀	
	S	M	P	$P \wedge \sim M$	$S > M$	$S > P$	
Some P is not M. <u>All S is M.</u>	1	1	1	0	1	1	
∴ All S is P.	3	1	0	1	1	0*	1
	4	1	0	0	0	0*	0
$(\exists x)(Px \wedge \sim Mx)$	5	0	1	1	0	1	1
$(\forall x)(Sx > Mx)$	6	0	1	0	0	1	1
∴ $(\forall x)(Sx > Px)$	7	0	0	1	1	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: III-OAA							
	∃	∃	∃	∃	∀	∀	
	S	M	P	$M \wedge \sim P$	$M > S$	$S > P$	
Some M is not P. <u>All M is S.</u>	1	1	1	0	1	1	
∴ All S is P.	3	1	0	1	0	1	0
	4	1	0	0	0	1	0
$(\exists x)(Mx \wedge \sim Px)$	5	0	1	1	0	0*	1
$(\forall x)(Mx > Sx)$	6	0	1	0	1	0*	1
∴ $(\forall x)(Sx > Px)$	7	0	0	1	0	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: IV-OAA							
	∃	∃	∃	∃	∀	∀	
	S	M	P	$P \wedge \sim M$	$M > S$	$S > P$	
Some P is not M. <u>All M is S.</u>	1	1	1	0	1	1	
∴ All S is P.	3	1	0	1	0	1	0
	4	1	0	0	0	1	0
$(\exists x)(Px \wedge \sim Mx)$	5	0	1	1	0	0*	1
$(\forall x)(Mx > Sx)$	6	0	1	0	0	0*	1
∴ $(\forall x)(Sx > Px)$	7	0	0	1	1	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: I-OAE							
	∃	∃	∃	∃	∀	∀	
	S	M	P	$M \wedge \sim P$	$S > M$	$S > \sim P$	
Some M is not P. <u>All S is M.</u>	1	1	1	0	1	0	
∴ All S is not P.	3	1	0	1	0	0*	0
	4	1	0	0	0	0*	1
$(\exists x)(Mx \wedge \sim Px)$	5	0	1	1	0	1	1
$(\forall x)(Sx > Mx)$	6	0	1	0	1	1	
∴ $(\forall x)(Sx > \sim Px)$	7	0	0	1	0	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: II-OAE							
	∃	∃	∃	∃	∀	∀	
	S	M	P	$P \wedge \sim M$	$S > M$	$S > \sim P$	
Some P is not M. <u>All S is M.</u>	1	1	1	0	1	0	
∴ All S is not P.	3	1	0	1	1	0*	0
	4	1	0	0	0	0*	1
$(\exists x)(Px \wedge \sim Mx)$	5	0	1	1	0	1	1
$(\forall x)(Sx > Mx)$	6	0	1	0	0	1	1
∴ $(\forall x)(Sx > \sim Px)$	7	0	0	1	1	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: III-OAE							
	∃	∃	∃	∃	∀	∀	
	S	M	P	$M \wedge \sim P$	$M > S$	$S > \sim P$	
Some M is not P. <u>All M is S.</u>	1	1	1	0	1	0	
∴ All S is not P.	3	1	0	1	0	1	0
	4	1	0	0	0	1	1
$(\exists x)(Mx \wedge \sim Px)$	5	0	1	1	0	0*	1
$(\forall x)(Mx > Sx)$	6	0	1	0	1	0*	1
∴ $(\forall x)(Sx > \sim Px)$	7	0	0	1	0	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: IV-OAE							
	∃	∃	∃	∃	∀	∀	
	S	M	P	$P \wedge \sim M$	$M > S$	$S > \sim P$	
Some P is not M. <u>All M is S.</u>	1	1	1	0	1	0	
∴ All S is not P.	3	1	0	1	1	1	0
	4	1	0	0	0	1	1
$(\exists x)(Px \wedge \sim Mx)$	5	0	1	1	0	0*	1
$(\forall x)(Mx > Sx)$	6	0	1	0	0	0*	1
∴ $(\forall x)(Sx > \sim Px)$	7	0	0	1	1	1	1
	8	0	0	0	0	1	1
	1	1	1	1	1	0	

Form: I-OAI							
	∃	∃	∃	∃	∀	∃	
	S	M	P	$M \wedge \sim P$	$S > M$	$S \wedge P$	
Some M is not P. <u>All S is M.</u>	1	1	1	0	1	1*	
∴ Some S is P.	3	1	0	1	0	0*	1*
	4	1	0	0	0	0*	0
$(\exists x)(Mx \wedge \sim Px)$	5	0	1	1	0	1	0
$(\forall x)(Sx > Mx)$	6	0	1	0	1	0	
∴ $(\exists x)(Sx \wedge Px)$	7	0	0	1	0	1	0
	8	0	0	0	0	1	0
	1	1	1	1	1	0	

Form: II-OAI							
	∃	∃	∃	∃	∀	∃	
	S	M	P	$P \wedge \sim M$	$S > M$	$S \wedge P$	
Some P is not M. <u>All S is M.</u>	1	1	1	0	1	1*	
∴ Some S is P.	3	1	0	1	1	0*	1*
	4	1	0	0	0	0*	0
$(\exists x)(Px \wedge \sim Mx)$	5	0	1	1	0	1	0
$(\forall x)(Sx > Mx)$	6	0	1	0	0	1	0
∴ $(\exists x)(Sx \wedge Px)$	7	0	0	1	1	1	0
	8	0	0	0	0	1	0
	1	1	1	1	1	0	

Form: III-OAI							
	∃	∃	∃	∃	∀	∃	
	S	M	P	$M \wedge \sim P$	$M > S$	$S \wedge P$	
Some M is not P. <u>All M is S.</u>	1	1	1	0	1	1*	
∴ Some S is P.	3	1	0	1	0	1	1*
	4	1	0	0	0	1	0
$(\exists x)(Mx \wedge \sim Px)$	5	0	1	1	0	0*	0
$(\forall x)(Mx > Sx)$	6	0	1	0	1	0*	0
∴ $(\exists x)(Sx \wedge Px)$	7	0	0	1	0	1	0
	8	0	0	0	0	1	0
	1	1	1	1	1	0	

Form: IV-OAI							
	∃	∃	∃	∃	∀	∃	
	S	M	P	$P \wedge \sim M$	$M > S$	$S \wedge P$	
Some P is not M. <u>All M is S.</u>	1	1	1	0	1	1*	
∴ Some S is P.	3	1	0	1	1	1	1*
	4	1	0	0	0	1	0
$(\exists x)(Px \wedge \sim Mx)$	5	0	1	1	0	0*	0
$(\forall x)(Mx > Sx)$	6	0	1	0	0	0*	0
∴ $(\exists x)(Sx \wedge Px)$	7	0	0	1	1	1	0
	8	0	0	0	0	1	0
	1	1	1	1	1	0	

Form: I-OAO							
	∃	∃	∃	∃	∀	∃	
	S	M	P	$M \wedge \sim P$	$S > M$	$S \wedge \sim P$	
Some M is not P. <u>All S is M.</u>	1	1	1	0	1	0	
∴ Some S is not P.	3	1	0	1	0	0*	0
	4	1	0	0	0	0*	1*
$(\exists x)(Mx \wedge \sim Px)$	5	0	1	1	0	1	0
$(\forall x)(Sx > Mx)$	6	0	1	0	1	0	
∴ $(\exists x)(Sx \wedge \sim Px)$	7	0	0	1	0	1	0
	8	0	0	0	0	1	0
	1	1	1	1	1	0	

Form: II-OAO							
	∃	∃	∃	∃	∀	∃	
	S	M	P	$P \wedge \sim M$	$S > M$	$S \wedge \sim P$	
Some P is not M. <u>All S is M.</u>	1	1	1	0	1	0	
∴ Some S is not P.	3	1	0	1	1	0*	0
	4	1	0	0	0	0*	1*
$(\exists x)(Px \wedge \sim Mx)$	5	0	1	1	0	1	0
$(\forall x)(Sx > Mx)$	6	0	1	0	0	1	0
∴ $(\exists x)(Sx \wedge \sim Px)$	7	0	0	1	1	1	0
	8	0	0	0	0	1	0
	1	1	1	1	1	0	

Form: III-OAO (15, 19, 24)							
	∃	∃	∃	∃	∀	∃	
	S	M	P	$M \wedge \sim P$	$M > S$	$S \wedge \sim P$	
Some M is not P. <u>All M is S.</u>	1	1	1	0	1	0	
∴ Some S is not P.	3	1	0	1	0	1	0
	4	1	0	0	0	1	1*
$(\exists x)(Mx \wedge \sim Px)$	5	0	1	1	0	0*	0
$(\forall x)(Mx > Sx)$	6	0	1	0	1	0*	0
∴ $(\exists x)(Sx \wedge \sim Px)$	7	0	0	1	0	1	0
	8	0	0	0	0	1	0
	1	1	1	0	1	0	

Form: IV-OAO							
	∃	∃	∃	∃	∀	∃	
	S	M	P	$P \wedge \sim M$	$M > S$	$S \wedge \sim P$	
Some P is not M. <u>All M is S.</u>	1	1	1	0	1	0	
∴ Some S is not P.	3	1	0	1	1	1	0
	4	1	0	0	0	1	1*
$(\exists x)(Px \wedge \sim Mx)$	5	0	1	1	0	0*	0
$(\forall x)(Mx > Sx)$	6	0	1	0	0	0*	0
∴ $(\exists x)(Sx \wedge \sim Px)$	7	0	0	1	1	1	0
	8	0	0	0	0	1	0
	1	1	1	1	1	0	



Form: I-OIA						
	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ ~P	S ∧ M	S > P
Some M is not P. Some S is M. ∴ All S is P.	1	1	1	0	1	1
	2	1	1	0	1	0
	3	1	0	1	0	1
	4	1	0	0	0	0
$(\exists x)(Mx \wedge \sim Px)$	5	0	1	1	0	1
$(\exists x)(Sx \wedge Mx)$	6	0	1	0	1	1
$\therefore (\forall x)(Sx > Px)$	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: II-OIA

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ ~M	S ∧ M	S > P
Some P is not M.	1	1	1	0	1	1
Some S is M.	2	1	1	0	1	0
∴ All S is P.	3	1	0	1	0	1
	4	1	0	0	0	0
(∃x) (Px ∧ ~Mx)	5	0	1	1	0	1
(∃x) (Sx ∧ Mx)	6	0	1	0	0	1
∴ (∀x) (Sx > Px)	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: III-OIA

	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ ~P	M ∧ S	S > P
Some M is not P.	1	1	1	0	1	1
Some M is S.	2	1	1	0	1	1
∴ All S is P.	3	1	0	1	0	1
	4	1	0	0	0	0
(∃x)(Mx ∧ ~Px)	5	0	1	1	0	1
(∃x)(Mx ∧ Sx)	6	0	1	0	1	1
∴ (∀x)(Sx > Px)	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: IV-OIA

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ ~M	M ∧ S	S > P
Some P is not M.	1	1	1	0	1	1
Some M is S.	2	1	1	0	1	0
∴ All S is P.	3	1	0	1	0	1
	4	1	0	0	0	0
(∃x) (Px ∧ ~Mx)	5	0	1	1	0	1
(∃x) (Mx ∧ Sx)	6	0	1	0	0	1
∴ (∀x) (Sx > Px)	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: I-OIE							
	∃	∃	∃	∃	∃	∀	
	S	M	P	M ∧ ~P	S ∧ M	S > ~P	
Some M is not P.	1	1	1	0	1	0	
	2	1	1	0	1	1	
Some S is M.	3	1	0	1	0	0	
∴ All S is not P.	4	1	0	0	0	0	
	5	1	0	0	0	1	
(∃x) (Mx ∧ ~Px)	6	0	1	1	0	0	
(∃x) (Sx ∧ Mx)	7	0	1	0	0	1	
∴ (∀x) (Sx > ~Px)	8	0	0	1	0	0	
	9	0	0	0	0	1	
	1	1	1	1	1	0	

Form: II-OIE

		∃	∃	∃	∃	∃	∀
		S	M	P	P ∧ ~M	S ∧ M	S > ~P
Some P is not M.	1	1	1	1	0	1	0
Some S is M.	2	1	1	0	0	1	1
∴ All S is not P.	3	1	0	1	1	0	0
	4	1	0	0	0	0	1
(∃x) (Px ∧ ~Mx)	5	0	1	1	0	0	1
(∃x) (Sx ∧ Mx)	6	0	1	0	0	0	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	1	0	1
	8	0	0	0	0	0	1
		1	1	1	1	1	0

Form: III-OIE						
	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ ~P	M ∧ S	S > ~P
Some M is not P.	1	1	1	0	1	0
Some M is S.	2	1	1	0	1	1
∴ All S is not P.	3	1	0	1	0	0
	4	1	0	0	0	1
(∃x) (Mx ∧ ~Px)	5	0	1	1	0	1
(∃x) (Mx ∧ Sx)	6	0	1	0	1	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: IV-OIE

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ ~M	M ∧ S	S > ~P
Some P is not M.	1	1	1	0	1	0
Some M is S.	2	1	1	0	1	1
∴ All S is not P.	3	1	0	1	0	0
	4	1	0	0	0	1
(∃x) (Px ∧ ~Mx)	5	0	1	1	0	1
(∃x) (Mx ∧ Sx)	6	0	1	0	0	1
∴ (∀x) (Sx > ~Px)	7	0	0	1	0	1
	8	0	0	0	0	1
	1	1	1	1	1	0

Form: I-OII							
	∃	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ ~P	S ∧ M	S ∧ P	
Some M is not P.	1	1	1	0	1	1*	
Some S is M.	2	1	1	0	1	1	0
∴ Some S is P.	3	1	0	1	0	0	1*
	4	1	0	0	0	0	0
(∃x) (Mx ∧ ~Px)	5	0	1	1	0	0	0
(∃x) (Sx ∧ Mx)	6	0	1	0	1	0	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0	0	0
	8	0	0	0	0	0	0
	1	1	1	1	1	1	0

Form: II-OII							
	∃	∃	∃	∃	∃	∃	
	S	M	P	P ∧ ~M	S ∧ M	S ∧ P	
Some P is not M.	1	1	1	0	1	1*	
<u>Some S is M.</u>	2	1	1	0	1	0	
∴ Some S is P.	3	1	0	1	0	1*	
	4	1	0	0	0	0	
(∃x) (Px ∧ ~Mx)	5	0	1	1	0	0	
(∃x) (Sx ∧ Mx)	6	0	1	0	0	0	
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0	0	
	8	0	0	0	0	0	
	1	1	1	1	1	0	

Form: III-OII						
	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ ~P	M ∧ S	S ∧ P
Some M is not P.	1	1	1	0	1	1*
Some M is S.	2	1	1	0	1	0
∴ Some S is P.	3	1	0	1	0	1*
	4	1	0	0	0	0
(∃x) (Mx ∧ ~Px)	5	0	1	1	0	0
(∃x) (Mx ∧ Sx)	6	0	1	0	0	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0	0
	8	0	0	0	0	0
	1	1	1	1	1	0

Form: IV-OII						
	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ ~M	M ∧ S	S ∧ P
Some P is not M.	1	1	1	0	1	1*
Some M is S.	2	1	1	0	0	1
∴ Some S is P.	3	1	0	1	0	1*
	4	1	0	0	0	0
(∃x) (Px ∧ ~Mx)	5	0	1	1	0	0
(∃x) (Mx ∧ Sx)	6	0	1	0	0	0
∴ (∃x) (Sx ∧ Px)	7	0	0	1	0	0
	8	0	0	0	0	0
	1	1	1	1	1	0

Form: I-OIO							
	∃	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ ~P	S ∧ M	S ∧ ~P	
Some M is not P.	1	1	1	1	0	1	0
Some S is M.	2	1	1	0	1	1	1*
∴ Some S is not P.	3	1	0	1	0	0	0
	4	1	0	0	0	0	1*
(∃x)(Mx ∧ ~Px)	5	0	1	1	0	0	0
(∃x)(Sx ∧ Mx)	6	0	1	0	1	0	0
∴ (∃x)(Sx ∧ ~Px)	7	0	0	1	0	0	0
	8	0	0	0	0	0	0
	1	1	1	1	1	1	0

Form: II-OIO							
	∃	∃	∃	∃	∃	∃	
	S	M	P	P ∧ ~M	S ∧ M	S ∧ ~P	
Some P is not M.	1	1	1	0	1	0	
<u>Some S is M.</u>	2	1	1	0	1	1*	
∴ Some S is not P.	3	1	0	1	0	0	
	4	1	0	0	0	1*	
(∃x) (Px ∧ ~Mx)	5	0	1	1	0	0	
(∃x) (Sx ∧ Mx)	6	0	1	0	0	0	
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	0	0	
	8	0	0	0	0	0	
	1	1	1	1	1	0	

Form: III-OIO						
	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ ~P	M ∧ S	S ∧ ~P
Some M is not P.	1	1	1	0	1	0
Some M is S.	2	1	1	0	1	1*
∴ Some S is not P.	3	1	0	1	0	0
	4	1	0	0	0	1*
(∃x) (Mx ∧ ~Px)	5	0	1	1	0	0
(∃x) (Mx ∧ Sx)	6	0	1	0	0	0
∴ (∃x) (Sx ∧ ~Px)	7	0	0	1	0	0
	8	0	0	0	0	0
	1	1	1	1	1	0

Form: IV-OIO							
	∃	∃	∃	∃	∃	∃	
	S	M	P	P ∧ ~M	M ∧ S	S ∧ ~P	
Some P is not M.	1	1	1	0	1	0	
Some M is S.	2	1	1	0	1	1*	
Some S is not P.	3	1	0	1	0	0	
	4	1	0	0	0	1*	
(∃x)(Px ∧ ~Mx)	5	0	1	1	0	0	
(∃x)(Mx ∧ Sx)	6	0	1	0	0	0	
∴ (∃x)(Sx ∧ ~Px)	7	0	0	1	0	0	
	8	0	0	0	0	0	
	1	1	1	1	1	0	

