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

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

Form: II-AAA

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

Form: III-AAA

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

Form: IV-AAA

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

Form: I-AAE

		∃	∃	∃	∀	∀	∀
		S	M	P	M > P	S > M	S > ˜P
All M is P.	1	1	1	1	1	1	0
All 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	1	0*	1
(∀x) (Mx > Px)	5	0	1	1	1	1	1
(∀x) (Sx > Mx)	6	0	1	0	0*	1	1
∴ (∀x) (Sx > ˜Px)	7	0	0	1	1	1	1
	8	0	0	0	1	1	1
		1	1	1	1	1	0

Form: II-AAE

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

Form: III-AAE

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

Form: IV-AAE

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

Form: II-AAI

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

Form: I-AAO

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

Form: II-AAO

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

Form: III-AAO

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

Form: IV-AAO

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

Form: I-AEA

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

Form: II-AEA

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

Form: III-AEA

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

Form: IV-AEA

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

Form: I-AEE

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

Form: III-AEE

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

Form: I-AEI

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

Form: II-AEI

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

Form: III-AEI

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

Form: IV-AEI

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

Form: I-AEO

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

Form: III-AEO

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

Form: I-AIA

All M is P.
Some S is M.
∴ All S is P.

(∀x) (Mx > Px)
(∃x) (Sx ∧ Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	S ∧ M	S > P
1	1	1	1	1	1	1
2	1	1	0	0*	1	0
3	1	0	1	1	0	1
4	1	0	0	1	0	0
5	0	1	1	1	0	1
6	0	1	0	0*	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: II-AIA

All P is M.
Some S is M.
∴ All S is P.

(∀x) (Px > Mx)
(∃x) (Sx ∧ Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	S ∧ M	S > P
1	1	1	1	1	1	1
2	1	1	0	1	1	0
3	1	0	1	0*	0	1
4	1	0	0	1	0	0
5	0	1	1	1	0	1
6	0	1	0	1	0	1
7	0	0	1	0*	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: III-AIA

All M is P.
Some M is S.
∴ All S is P.

(∀x) (Mx > Px)
(∃x) (Mx ∧ Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	M ∧ S	S > P
1	1	1	1	1	1	1
2	1	1	0	0*	1	0
3	1	0	1	1	0	1
4	1	0	0	1	0	0
5	0	1	1	1	0	1
6	0	1	0	0*	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: IV-AIA

All P is M.
Some M is S.
∴ All S is P.

(∀x) (Px > Mx)
(∃x) (Mx ∧ Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	M ∧ S	S > P
1	1	1	1	1	1	1
2	1	1	0	1	1	0
3	1	0	1	0*	0	1
4	1	0	0	1	0	0
5	0	1	1	1	0	1
6	0	1	0	1	0	1
7	0	0	1	0*	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: I-AIE

All M is P.
Some S is M.
∴ All S is not P.

(∀x) (Mx > Px)
(∃x) (Sx ∧ Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	S ∧ M	S > ˜P
1	1	1	1	1	1	0
2	1	1	0	0*	1	1
3	1	0	1	1	0	0
4	1	0	0	1	0	1
5	0	1	1	1	0	1
6	0	1	0	0*	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: II-AIE

All P is M.
Some S is M.
∴ All S is not P.

(∀x) (Px > Mx)
(∃x) (Sx ∧ Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	S ∧ M	S > ˜P
1	1	1	1	1	1	0
2	1	1	0	1	1	1
3	1	0	1	0*	0	0
4	1	0	0	1	0	1
5	0	1	1	1	0	1
6	0	1	0	1	0	1
7	0	0	1	0*	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: III-AIE

All M is P.
Some M is S.
∴ All S is not P.

(∀x) (Mx > Px)
(∃x) (Mx ∧ Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	M ∧ S	S > ˜P
1	1	1	1	1	1	0
2	1	1	0	0*	1	1
3	1	0	1	1	0	0
4	1	0	0	1	0	1
5	0	1	1	1	0	1
6	0	1	0	0*	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: IV-AIE

All P is M.
Some M is S.
∴ All S is not P.

(∀x) (Px > Mx)
(∃x) (Mx ∧ Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	M ∧ S	S > ˜P
1	1	1	1	1	1	0
2	1	1	0	1	1	1
3	1	0	1	0*	0	0
4	1	0	0	1	0	1
5	0	1	1	1	0	1
6	0	1	0	1	0	1
7	0	0	1	0*	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

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

All M is P.
Some S is M.
∴ Some S is P.

(∀x) (Mx > Px)
(∃x) (Sx ∧ Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	S ∧ M	S ∧ P
1	1	1	1	1	1	1*
2	1	1	0	0*	1	0
3	1	0	1	1	0	1*
4	1	0	0	1	0	0
5	0	1	1	1	0	0
6	0	1	0	0*	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	0	0

Form: II-AII

All P is M.
Some S is M.
∴ Some S is P.

(∀x) (Px > Mx)
(∃x) (Sx ∧ Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	S ∧ M	S ∧ P
1	1	1	1	1	1	1*
2	1	1	0	1	1	0
3	1	0	1	0*	0	1*
4	1	0	0	1	0	0
5	0	1	1	1	0	0
6	0	1	0	1	0	0
7	0	0	1	0*	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

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

All M is P.
Some M is S.
∴ Some S is P.

(∀x) (Mx > Px)
(∃x) (Mx ∧ Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	M ∧ S	S ∧ P
1	1	1	1	1	1	1*
2	1	1	0	0*	1	0
3	1	0	1	1	0	1*
4	1	0	0	1	0	0
5	0	1	1	1	0	0
6	0	1	0	0*	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	0	0

Form: IV-AII

All P is M.
Some M is S.
∴ Some S is P.

(∀x) (Px > Mx)
(∃x) (Mx ∧ Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	M ∧ S	S ∧ P
1	1	1	1	1	1	1*
2	1	1	0	1	1	0
3	1	0	1	0*	0	1*
4	1	0	0	1	0	0
5	0	1	1	1	0	0
6	0	1	0	1	0	0
7	0	0	1	0*	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: I-AIO

All M is P.
Some S is M.
∴ Some S is not P.

(∀x) (Mx > Px)
(∃x) (Sx ∧ Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	S ∧ M	S ∧ ˜P
1	1	1	1	1	1	0
2	1	1	0	0*	1	1*
3	1	0	1	1	0	0
4	1	0	0	1	0	1*
5	0	1	1	1	0	0
6	0	1	0	0*	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: II-AIO

All P is M.
Some S is M.
∴ Some S is not P.

(∀x) (Px > Mx)
(∃x) (Sx ∧ Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	S ∧ M	S ∧ ˜P
1	1	1	1	1	1	0
2	1	1	0	1	1	1*
3	1	0	1	0*	0	0
4	1	0	0	1	0	1*
5	0	1	1	1	0	0
6	0	1	0	1	0	0
7	0	0	1	0*	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: III-AIO

All M is P.
Some M is S.
∴ Some S is not P.

(∀x) (Mx > Px)
(∃x) (Mx ∧ Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	M ∧ S	S ∧ ˜P
1	1	1	1	1	1	0
2	1	1	0	0*	1	1*
3	1	0	1	1	0	0
4	1	0	0	1	0	1*
5	0	1	1	1	0	0
6	0	1	0	0*	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: IV-AIO

All P is M.
Some M is S.
∴ Some S is not P.

(∀x) (Px > Mx)
(∃x) (Mx ∧ Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	M ∧ S	S ∧ ˜P
1	1	1	1	1	1	0
2	1	1	0	1	1	1*
3	1	0	1	0*	0	0
4	1	0	0	1	0	1*
5	0	1	1	1	0	0
6	0	1	0	1	0	0
7	0	0	1	0*	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: I-AOA

All M is P.
Some S is not M.
∴ All S is P.

(∀x) (Mx > Px)
(∃x) (Sx ∧ ˜Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	S ∧ ˜M	S > P
1	1	1	1	1	0	1
2	1	1	0	0*	0	0
3	1	0	1	1	1	1
4	1	0	0	1	1	0
5	0	1	1	1	0	1
6	0	1	0	0*	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: II-AOA

All P is M.
Some S is not M.
∴ All S is P.

(∀x) (Px > Mx)
(∃x) (Sx ∧ ˜Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	S ∧ ˜M	S > P
1	1	1	1	1	0	1
2	1	1	0	1	0	0
3	1	0	1	0*	1	1
4	1	0	0	1	1	0
5	0	1	1	1	0	1
6	0	1	0	1	0	1
7	0	0	1	0*	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: III-AOA

All M is P.
Some M is not S.
∴ All S is P.

(∀x) (Mx > Px)
(∃x) (Mx ∧ ˜Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	M ∧ ˜S	S > P
1	1	1	1	1	0	1
2	1	1	0	0*	0	0
3	1	0	1	1	0	1
4	1	0	0	1	0	0
5	0	1	1	1	1	1
6	0	1	0	0*	1	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: IV-AOA

All P is M.
Some M is not S.
∴ All S is P.

(∀x) (Px > Mx)
(∃x) (Mx ∧ ˜Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	M ∧ ˜S	S > P
1	1	1	1	1	0	1
2	1	1	0	1	0	0
3	1	0	1	0*	0	1
4	1	0	0	1	0	0
5	0	1	1	1	1	1
6	0	1	0	1	1	1
7	0	0	1	0*	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: I-AOE

All M is P.
Some S is not M.
∴ All S is not P.

(∀x) (Mx > Px)
(∃x) (Sx ∧ ˜Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	S ∧ ˜M	S > ˜P
1	1	1	1	1	0	0
2	1	1	0	0*	0	1
3	1	0	1	1	1	0
4	1	0	0	1	1	1
5	0	1	1	1	0	1
6	0	1	0	0*	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: II-AOE

All P is M.
Some S is not M.
∴ All S is not P.

(∀x) (Px > Mx)
(∃x) (Sx ∧ ˜Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	S ∧ ˜M	S > ˜P
1	1	1	1	1	0	0
2	1	1	0	1	0	1
3	1	0	1	0*	1	0
4	1	0	0	1	1	1
5	0	1	1	1	0	1
6	0	1	0	1	0	1
7	0	0	1	0*	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: III-AOE

All M is P.
Some M is not S.
∴ All S is not P.

(∀x) (Mx > Px)
(∃x) (Mx ∧ ˜Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > P	M ∧ ˜S	S > ˜P
1	1	1	1	1	0	0
2	1	1	0	0*	0	1
3	1	0	1	1	0	0
4	1	0	0	1	0	1
5	0	1	1	1	1	1
6	0	1	0	0*	1	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: IV-AOE

All P is M.
Some M is not S.
∴ All S is not P.

(∀x) (Px > Mx)
(∃x) (Mx ∧ ˜Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > M	M ∧ ˜S	S > ˜P
1	1	1	1	1	0	0
2	1	1	0	1	0	1
3	1	0	1	0*	0	0
4	1	0	0	1	0	1
5	0	1	1	1	1	1
6	0	1	0	1	1	1
7	0	0	1	0*	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: I-AOI

All M is P.
Some S is not M.
∴ Some S is P.

(∀x) (Mx > Px)
(∃x) (Sx ∧ ˜Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	S ∧ ˜M	S ∧ P
1	1	1	1	1	0	1*
2	1	1	0	0*	0	0
3	1	0	1	1	1	1*
4	1	0	0	1	1	0
5	0	1	1	1	0	0
6	0	1	0	0*	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: II-AOI

All P is M.
Some S is not M.
∴ Some S is P.

(∀x) (Px > Mx)
(∃x) (Sx ∧ ˜Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	S ∧ ˜M	S ∧ P
1	1	1	1	1	0	1*
2	1	1	0	1	0	0
3	1	0	1	0*	1	1*
4	1	0	0	1	1	0
5	0	1	1	1	0	0
6	0	1	0	1	0	0
7	0	0	1	0*	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: III-AOI

All M is P.
Some M is not S.
∴ Some S is P.

(∀x) (Mx > Px)
(∃x) (Mx ∧ ˜Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	M ∧ ˜S	S ∧ P
1	1	1	1	1	0	1*
2	1	1	0	0*	0	0
3	1	0	1	1	0	1*
4	1	0	0	1	0	0
5	0	1	1	1	1	0
6	0	1	0	0*	1	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: IV-AOI

All P is M.
Some M is not S.
∴ Some S is P.

(∀x) (Px > Mx)
(∃x) (Mx ∧ ˜Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	M ∧ ˜S	S ∧ P
1	1	1	1	1	0	1*
2	1	1	0	1	0	0
3	1	0	1	0*	0	1*
4	1	0	0	1	0	0
5	0	1	1	1	1	0
6	0	1	0	1	1	0
7	0	0	1	0*	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: I-AOO

All M is P.
Some S is not M.
∴ Some S is not P.

(∀x) (Mx > Px)
(∃x) (Sx ∧ ˜Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	S ∧ ˜M	S ∧ ˜P
1	1	1	1	1	0	0
2	1	1	0	0*	0	1*
3	1	0	1	1	1	0
4	1	0	0	1	1	1*
5	0	1	1	1	0	0
6	0	1	0	0*	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: II-AOO (15, 19, 24)

All P is M.
Some S is not M.
∴ Some S is not P.

(∀x) (Px > Mx)
(∃x) (Sx ∧ ˜Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	S ∧ ˜M	S ∧ ˜P
1	1	1	1	1	0	0
2	1	1	0	1	0	1*
3	1	0	1	0*	1	0
4	1	0	0	1	1	1*
5	0	1	1	1	0	0
6	0	1	0	1	0	0
7	0	0	1	0*	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: III-AOO

All M is P.
Some M is not S.
∴ Some S is not P.

(∀x) (Mx > Px)
(∃x) (Mx ∧ ˜Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > P	M ∧ ˜S	S ∧ ˜P
1	1	1	1	1	0	0
2	1	1	0	0*	0	1*
3	1	0	1	1	0	0
4	1	0	0	1	0	1*
5	0	1	1	1	1	0
6	0	1	0	0*	1	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: IV-AOO

All P is M.
Some M is not S.
∴ Some S is not P.

(∀x) (Px > Mx)
(∃x) (Mx ∧ ˜Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > M	M ∧ ˜S	S ∧ ˜P
1	1	1	1	1	0	0
2	1	1	0	1	0	1*
3	1	0	1	0*	0	0
4	1	0	0	1	0	1*
5	0	1	1	1	1	0
6	0	1	0	1	1	0
7	0	0	1	0*	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: I-EAA

All M is not P.
All S is M.
∴ All S is P.

(∀x) (Mx > ˜Px)
(∀x) (Sx > Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	M > ˜P	S > M	S > P
1	1	1	1	0*	1	1
2	1	1	0	1	1	0
3	1	0	1	1	0*	1
4	1	0	0	1	0*	0
5	0	1	1	0*	1	1
6	0	1	0	1	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: II-EAA

All P is not M.
All S is M.
∴ All S is P.

(∀x) (Px > ˜Mx)
(∀x) (Sx > Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	P > ˜M	S > M	S > P
1	1	1	1	0*	1	1
2	1	1	0	1	1	0
3	1	0	1	1	0*	1
4	1	0	0	1	0*	0
5	0	1	1	0*	1	1
6	0	1	0	1	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: III-EAA

All M is not P.
All M is S.
∴ All S is P.

(∀x) (Mx > ˜Px)
(∀x) (Mx > Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	M > ˜P	M > S	S > P
1	1	1	1	0*	1	1
2	1	1	0	1	1	0
3	1	0	1	1	1	1
4	1	0	0	1	1	0
5	0	1	1	0*	0*	1
6	0	1	0	1	0*	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: IV-EAA

All P is not M.
All M is S.
∴ All S is P.

(∀x) (Px > ˜Mx)
(∀x) (Mx > Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	P > ˜M	M > S	S > P
1	1	1	1	0*	1	1
2	1	1	0	1	1	0
3	1	0	1	1	1	1
4	1	0	0	1	1	0
5	0	1	1	0*	0*	1
6	0	1	0	1	0*	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

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

All M is not P.
All S is M.
∴ All S is not P.

(∀x) (Mx > ˜Px)
(∀x) (Sx > Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	M > ˜P	S > M	S > ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1
3	1	0	1	1	0*	0
4	1	0	0	1	0*	1
5	0	1	1	0*	1	1
6	0	1	0	1	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	1

Form: II-EAE (15, 19, 24)

All P is not M.
All S is M.
∴ All S is not P.

(∀x) (Px > ˜Mx)
(∀x) (Sx > Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	P > ˜M	S > M	S > ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1
3	1	0	1	1	0*	0
4	1	0	0	1	0*	1
5	0	1	1	0*	1	1
6	0	1	0	1	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	1

Form: III-EAE

All M is not P.
All M is S.
∴ All S is not P.

(∀x) (Mx > ˜Px)
(∀x) (Mx > Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	M > ˜P	M > S	S > ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1
3	1	0	1	1	1	0
4	1	0	0	1	1	1
5	0	1	1	0*	0*	1
6	0	1	0	1	0*	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: IV-EAE

All P is not M.
All M is S.
∴ All S is not P.

(∀x) (Px > ˜Mx)
(∀x) (Mx > Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	P > ˜M	M > S	S > ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1
3	1	0	1	1	1	0
4	1	0	0	1	1	1
5	0	1	1	0*	0*	1
6	0	1	0	1	0*	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: I-EAI

All M is not P.
All S is M.
∴ Some S is P.

(∀x) (Mx > ˜Px)
(∀x) (Sx > Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	M > ˜P	S > M	S ∧ P
1	1	1	1	0*	1	1*
2	1	1	0	1	1	0
3	1	0	1	1	0*	1*
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
	1	1	1	1	1	0

Form: II-EAI

All P is not M.
All S is M.
∴ Some S is P.

(∀x) (Px > ˜Mx)
(∀x) (Sx > Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	P > ˜M	S > M	S ∧ P
1	1	1	1	0*	1	1*
2	1	1	0	1	1	0
3	1	0	1	1	0*	1*
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
	1	1	1	1	1	0

Form: III-EAI

All M is not P.
All M is S.
∴ Some S is P.

(∀x) (Mx > ˜Px)
(∀x) (Mx > Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	M > ˜P	M > S	S ∧ P
1	1	1	1	0*	1	1*
2	1	1	0	1	1	0
3	1	0	1	1	1	1*
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
	1	1	1	1	1	0

Form: IV-EAI

All P is not M.
All M is S.
∴ Some S is P.

(∀x) (Px > ˜Mx)
(∀x) (Mx > Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	P > ˜M	M > S	S ∧ P
1	1	1	1	0*	1	1*
2	1	1	0	1	1	0
3	1	0	1	1	1	1*
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
	1	1	1	1	1	0

Form: I-EAO (24)

All M is not P.
All S is M.
∴ Some S is not P.

(∀x) (Mx > ˜Px)
(∀x) (Sx > Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	M > ˜P	S > M	S ∧ ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1*
3	1	0	1	1	0*	0
4	1	0	0	1	0*	1*
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
	0^+	1	1	1	1	0

Form: II-EAO (24)

All P is not M.
All S is M.
∴ Some S is not P.

(∀x) (Px > ˜Mx)
(∀x) (Sx > Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	P > ˜M	S > M	S ∧ ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1*
3	1	0	1	1	0*	0
4	1	0	0	1	0*	1*
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
	0^+	1	1	1	1	0

Form: III-EAO (19, 24)

All M is not P.
All M is S.
∴ Some S is not P.

(∀x) (Mx > ˜Px)
(∀x) (Mx > Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	M > ˜P	M > S	S ∧ ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1*
3	1	0	1	1	1	0
4	1	0	0	1	1	1*
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
	1	0^+	1	1	1	0

Form: IV-EAO (19, 24)

All P is not M.
All M is S.
∴ Some S is not P.

(∀x) (Px > ˜Mx)
(∀x) (Mx > Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	P > ˜M	M > S	S ∧ ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1*
3	1	0	1	1	1	0
4	1	0	0	1	1	1*
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
	1	0^+	1	1	1	0

Form: I-EEA

All M is not P.
All S is not M.
∴ All S is P.

(∀x) (Mx > ~Px)
(∀x) (Sx > ~Mx)
∴ (∀x) (Sx > 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	1	0
5	0	1	1	0*	1	1
6	0	1	0	1	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: II-EEA

All P is not M.
All S is not M.
∴ All S is P.

(∀x) (Px > ~Mx)
(∀x) (Sx > ~Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	P > ~M	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	1
6	0	1	0	1	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: III-EEA

All M is not P.
All M is not S.
∴ All S is P.

(∀x) (Mx > ~Px)
(∀x) (Mx > ~Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	M > ~P	M > ~S	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	1
6	0	1	0	1	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: IV-EEA

All P is not M.
All M is not S.
∴ All S is P.

(∀x) (Px > ~Mx)
(∀x) (Mx > ~Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	P > ~M	M > ~S	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	1
6	0	1	0	1	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: I-EEE

All M is not P.
All S is not M.
∴ All S is not P.

(∀x) (Mx > ~Px)
(∀x) (Sx > ~Mx)
∴ (∀x) (Sx > ~Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	M > ~P	S > ~M	S > ~P
1	1	1	1	0*	0*	0
2	1	1	0	1	0*	1
3	1	0	1	1	1	0
4	1	0	0	1	1	1
5	0	1	1	0*	1	1
6	0	1	0	1	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: II-EEE

All P is not M.
All S is not M.
∴ All S is not P.

(∀x) (Px > ~Mx)
(∀x) (Sx > ~Mx)
∴ (∀x) (Sx > ~Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	P > ~M	S > ~M	S > ~P
1	1	1	1	0*	0*	0
2	1	1	0	1	0*	1
3	1	0	1	1	1	0
4	1	0	0	1	1	1
5	0	1	1	0*	1	1
6	0	1	0	1	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: III-EEE

All M is not P.
All M is not S.
∴ All S is not P.

(∀x) (Mx > ~Px)
(∀x) (Mx > ~Sx)
∴ (∀x) (Sx > ~Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	M > ~P	M > ~S	S > ~P
1	1	1	1	0*	0*	0
2	1	1	0	1	0*	1
3	1	0	1	1	1	0
4	1	0	0	1	1	1
5	0	1	1	0*	1	1
6	0	1	0	1	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: IV-EEE

All P is not M.
All M is not S.
∴ All S is not P.

(∀x) (Px > ~Mx)
(∀x) (Mx > ~Sx)
∴ (∀x) (Sx > ~Px)

	∃	∃	∃	∀	∀	∀
	S	M	P	P > ~M	M > ~S	S > ~P
1	1	1	1	0*	0*	0
2	1	1	0	1	0*	1
3	1	0	1	1	1	0
4	1	0	0	1	1	1
5	0	1	1	0*	1	1
6	0	1	0	1	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: I-EEI

All M is not P.
All S is not M.
∴ Some S is P.

(∀x) (Mx > ~Px)
(∀x) (Sx > ~Mx)
∴ (∃x) (Sx ∧ 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	1	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
	1	1	1	1	1	0

Form: II-EEI

All P is not M.
All S is not M.
∴ Some S is P.

(∀x) (Px > ~Mx)
(∀x) (Sx > ~Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	P > ~M	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
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: III-EEI

All M is not P.
All M is not S.
∴ Some S is P.

(∀x) (Mx > ~Px)
(∀x) (Mx > ~Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	M > ~P	M > ~S	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
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: IV-EEI

All P is not M.
All M is not S.
∴ Some S is P.

(∀x) (Px > ~Mx)
(∀x) (Mx > ~Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	P > ~M	M > ~S	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
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: I-EEO

All M is not P.
All S is not M.
∴ Some S is not P.

(∀x) (Mx > ~Px)
(∀x) (Sx > ~Mx)
∴ (∃x) (Sx ∧ ~Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	M > ~P	S > ~M	S ∧ ~P
1	1	1	1	0*	0*	0
2	1	1	0	1	0*	1*
3	1	0	1	1	1	0
4	1	0	0	1	1	1*
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
	1	1	1	1	1	0

Form: II-EEO

All P is not M.
All S is not M.
∴ Some S is not P.

(∀x) (Px > ~Mx)
(∀x) (Sx > ~Mx)
∴ (∃x) (Sx ∧ ~Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	P > ~M	S > ~M	S ∧ ~P
1	1	1	1	0*	0*	0
2	1	1	0	1	0*	1*
3	1	0	1	1	1	0
4	1	0	0	1	1	1*
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
	1	1	1	1	1	0

Form: III-EEO

All M is not P.
All M is not S.
∴ Some S is not P.

(∀x) (Mx > ~Px)
(∀x) (Mx > ~Sx)
∴ (∃x) (Sx ∧ ~Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	M > ~P	M > ~S	S ∧ ~P
1	1	1	1	0*	0*	0
2	1	1	0	1	0*	1*
3	1	0	1	1	1	0
4	1	0	0	1	1	1*
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
	1	1	1	1	1	0

Form: IV-EEO

All P is not M.
All M is not S.
∴ Some S is not P.

(∀x) (Px > ~Mx)
(∀x) (Mx > ~Sx)
∴ (∃x) (Sx ∧ ~Px)

	∃	∃	∃	∀	∀	∃
	S	M	P	P > ~M	M > ~S	S ∧ ~P
1	1	1	1	0*	0*	0
2	1	1	0	1	0*	1*
3	1	0	1	1	1	0
4	1	0	0	1	1	1*
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
	1	1	1	1	1	0

Form: I-EIA

All M is not P.
Some S is M.
∴ All S is P.

(∀x) (Mx > ˜Px)
(∃x) (Sx ∧ Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > ˜P	S ∧ M	S > P
1	1	1	1	0*	1	1
2	1	1	0	1	1	0
3	1	0	1	1	0	1
4	1	0	0	1	0	0
5	0	1	1	0*	0	1
6	0	1	0	1	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: II-EIA

All P is not M.
Some S is M.
∴ All S is P.

(∀x) (Px > ˜Mx)
(∃x) (Sx ∧ Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > ˜M	S ∧ M	S > P
1	1	1	1	0*	1	1
2	1	1	0	1	1	0
3	1	0	1	1	0	1
4	1	0	0	1	0	0
5	0	1	1	0*	0	1
6	0	1	0	1	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: III-EIA

All M is not P.
Some M is S.
∴ All S is P.

(∀x) (Mx > ˜Px)
(∃x) (Mx ∧ Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > ˜P	M ∧ S	S > P
1	1	1	1	0*	1	1
2	1	1	0	1	1	0
3	1	0	1	1	0	1
4	1	0	0	1	0	0
5	0	1	1	0*	0	1
6	0	1	0	1	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: IV-EIA

All P is not M.
Some M is S.
∴ All S is P.

(∀x) (Px > ˜Mx)
(∃x) (Mx ∧ Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > ˜M	M ∧ S	S > P
1	1	1	1	0*	1	1
2	1	1	0	1	1	0
3	1	0	1	1	0	1
4	1	0	0	1	0	0
5	0	1	1	0*	0	1
6	0	1	0	1	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: I-EIE

All M is not P.
Some S is M.
∴ All S is not P.

(∀x) (Mx > ˜Px)
(∃x) (Sx ∧ Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > ˜P	S ∧ M	S > ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1
3	1	0	1	1	0	0
4	1	0	0	1	0	1
5	0	1	1	0*	0	1
6	0	1	0	1	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: II-EIE

All P is not M.
Some S is M.
∴ All S is not P.

(∀x) (Px > ˜Mx)
(∃x) (Sx ∧ Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > ˜M	S ∧ M	S > ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1
3	1	0	1	1	0	0
4	1	0	0	1	0	1
5	0	1	1	0*	0	1
6	0	1	0	1	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: III-EIE

All M is not P.
Some M is S.
∴ All S is not P.

(∀x) (Mx > ˜Px)
(∃x) (Mx ∧ Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > ˜P	M ∧ S	S > ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1
3	1	0	1	1	0	0
4	1	0	0	1	0	1
5	0	1	1	0*	0	1
6	0	1	0	1	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: IV-EIE

All P is not M.
Some M is S.
∴ All S is not P.

(∀x) (Px > ˜Mx)
(∃x) (Mx ∧ Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > ˜M	M ∧ S	S > ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1
3	1	0	1	1	0	0
4	1	0	0	1	0	1
5	0	1	1	0*	0	1
6	0	1	0	1	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: I-EII

All M is not P.
Some S is M.
∴ Some S is P.

(∀x) (Mx > ˜Px)
(∃x) (Sx ∧ Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > ˜P	S ∧ M	S ∧ P
1	1	1	1	0*	1	1*
2	1	1	0	1	1	0
3	1	0	1	1	0	1*
4	1	0	0	1	0	0
5	0	1	1	0*	0	0
6	0	1	0	1	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: II-EII

All P is not M.
Some S is M.
∴ Some S is P.

(∀x) (Px > ˜Mx)
(∃x) (Sx ∧ Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > ˜M	S ∧ M	S ∧ P
1	1	1	1	0*	1	1*
2	1	1	0	1	1	0
3	1	0	1	1	0	1*
4	1	0	0	1	0	0
5	0	1	1	0*	0	0
6	0	1	0	1	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: III-EII

All M is not P.
Some M is S.
∴ Some S is P.

(∀x) (Mx > ˜Px)
(∃x) (Mx ∧ Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > ˜P	M ∧ S	S ∧ P
1	1	1	1	0*	1	1*
2	1	1	0	1	1	0
3	1	0	1	1	0	1*
4	1	0	0	1	0	0
5	0	1	1	0*	0	0
6	0	1	0	1	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: IV-EII

All P is not M.
Some M is S.
∴ Some S is P.

(∀x) (Px > ˜Mx)
(∃x) (Mx ∧ Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > ˜M	M ∧ S	S ∧ P
1	1	1	1	0*	1	1*
2	1	1	0	1	1	0
3	1	0	1	1	0	1*
4	1	0	0	1	0	0
5	0	1	1	0*	0	0
6	0	1	0	1	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

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

All M is not P.
Some S is M.
∴ Some S is not P.

(∀x) (Mx > ˜Px)
(∃x) (Sx ∧ Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > ˜P	S ∧ M	S ∧ ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1*
3	1	0	1	1	0	0
4	1	0	0	1	0	1*
5	0	1	1	0*	0	0
6	0	1	0	1	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	0	0

Form: II-EIO (15, 19, 24)

All P is not M.
Some S is M.
∴ Some S is not P.

(∀x) (Px > ˜Mx)
(∃x) (Sx ∧ Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > ˜M	S ∧ M	S ∧ ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1*
3	1	0	1	1	0	0
4	1	0	0	1	0	1*
5	0	1	1	0*	0	0
6	0	1	0	1	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	0	0

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

All M is not P.
Some M is S.
∴ Some S is not P.

(∀x) (Mx > ˜Px)
(∃x) (Mx ∧ Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > ˜P	M ∧ S	S ∧ ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1*
3	1	0	1	1	0	0
4	1	0	0	1	0	1*
5	0	1	1	0*	0	0
6	0	1	0	1	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	0	0

Form: IV-EIO (15, 19, 24)

All P is not M.
Some M is S.
∴ Some S is not P.

(∀x) (Px > ˜Mx)
(∃x) (Mx ∧ Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > ˜M	M ∧ S	S ∧ ˜P
1	1	1	1	0*	1	0
2	1	1	0	1	1	1*
3	1	0	1	1	0	0
4	1	0	0	1	0	1*
5	0	1	1	0*	0	0
6	0	1	0	1	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	0	0

Form: I-EOA

All M is not P.
Some S is not M.
∴ All S is P.

(∀x) (Mx > ˜Px)
(∃x) (Sx ∧ ˜Mx)
∴ (∀x) (Sx > 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	1	0
5	0	1	1	0*	0	1
6	0	1	0	1	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: II-EOA

All P is not M.
Some S is not M.
∴ All S is P.

(∀x) (Px > ˜Mx)
(∃x) (Sx ∧ ˜Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > ˜M	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*	0	1
6	0	1	0	1	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: III-EOA

All M is not P.
Some M is not S.
∴ All S is P.

(∀x) (Mx > ˜Px)
(∃x) (Mx ∧ ˜Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > ˜P	M ∧ ˜S	S > P
1	1	1	1	0*	0	1
2	1	1	0	1	0	0
3	1	0	1	1	0	1
4	1	0	0	1	0	0
5	0	1	1	0*	1	1
6	0	1	0	1	1	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: IV-EOA

All P is not M.
Some M is not S.
∴ All S is P.

(∀x) (Px > ˜Mx)
(∃x) (Mx ∧ ˜Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > ˜M	M ∧ ˜S	S > P
1	1	1	1	0*	0	1
2	1	1	0	1	0	0
3	1	0	1	1	0	1
4	1	0	0	1	0	0
5	0	1	1	0*	1	1
6	0	1	0	1	1	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: I-EOE

All M is not P.
Some S is not M.
∴ All S is not P.

(∀x) (Mx > ˜Px)
(∃x) (Sx ∧ ˜Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > ˜P	S ∧ ˜M	S > ˜P
1	1	1	1	0*	0	0
2	1	1	0	1	0	1
3	1	0	1	1	1	0
4	1	0	0	1	1	1
5	0	1	1	0*	0	1
6	0	1	0	1	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: II-EOE

All P is not M.
Some S is not M.
∴ All S is not P.

(∀x) (Px > ˜Mx)
(∃x) (Sx ∧ ˜Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > ˜M	S ∧ ˜M	S > ˜P
1	1	1	1	0*	0	0
2	1	1	0	1	0	1
3	1	0	1	1	1	0
4	1	0	0	1	1	1
5	0	1	1	0*	0	1
6	0	1	0	1	0	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: III-EOE

All M is not P.
Some M is not S.
∴ All S is not P.

(∀x) (Mx > ˜Px)
(∃x) (Mx ∧ ˜Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	M > ˜P	M ∧ ˜S	S > ˜P
1	1	1	1	0*	0	0
2	1	1	0	1	0	1
3	1	0	1	1	0	0
4	1	0	0	1	0	1
5	0	1	1	0*	1	1
6	0	1	0	1	1	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: IV-EOE

All P is not M.
Some M is not S.
∴ All S is not P.

(∀x) (Px > ˜Mx)
(∃x) (Mx ∧ ˜Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∀	∃	∀
	S	M	P	P > ˜M	M ∧ ˜S	S > ˜P
1	1	1	1	0*	0	0
2	1	1	0	1	0	1
3	1	0	1	1	0	0
4	1	0	0	1	0	1
5	0	1	1	0*	1	1
6	0	1	0	1	1	1
7	0	0	1	1	0	1
8	0	0	0	1	0	1
	1	1	1	1	1	0

Form: I-EOI

All M is not P.
Some S is not M.
∴ Some S is P.

(∀x) (Mx > ˜Px)
(∃x) (Sx ∧ ˜Mx)
∴ (∃x) (Sx ∧ 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	1	0
5	0	1	1	0*	0	0
6	0	1	0	1	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: II-EOI

All P is not M.
Some S is not M.
∴ Some S is P.

(∀x) (Px > ˜Mx)
(∃x) (Sx ∧ ˜Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > ˜M	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*	0	0
6	0	1	0	1	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: III-EOI

All M is not P.
Some M is not S.
∴ Some S is P.

(∀x) (Mx > ˜Px)
(∃x) (Mx ∧ ˜Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > ˜P	M ∧ ˜S	S ∧ P
1	1	1	1	0*	0	1*
2	1	1	0	1	0	0
3	1	0	1	1	0	1*
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	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: IV-EOI

All P is not M.
Some M is not S.
∴ Some S is P.

(∀x) (Px > ˜Mx)
(∃x) (Mx ∧ ˜Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > ˜M	M ∧ ˜S	S ∧ P
1	1	1	1	0*	0	1*
2	1	1	0	1	0	0
3	1	0	1	1	0	1*
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	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: I-EOO

All M is not P.
Some S is not M.
∴ Some S is not P.

(∀x) (Mx > ˜Px)
(∃x) (Sx ∧ ˜Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > ˜P	S ∧ ˜M	S ∧ ˜P
1	1	1	1	0*	0	0
2	1	1	0	1	0	1*
3	1	0	1	1	1	0
4	1	0	0	1	1	1*
5	0	1	1	0*	0	0
6	0	1	0	1	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: II-EOO

All P is not M.
Some S is not M.
∴ Some S is not P.

(∀x) (Px > ˜Mx)
(∃x) (Sx ∧ ˜Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > ˜M	S ∧ ˜M	S ∧ ˜P
1	1	1	1	0*	0	0
2	1	1	0	1	0	1*
3	1	0	1	1	1	0
4	1	0	0	1	1	1*
5	0	1	1	0*	0	0
6	0	1	0	1	0	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: III-EOO

All M is not P.
Some M is not S.
∴ Some S is not P.

(∀x) (Mx > ˜Px)
(∃x) (Mx ∧ ˜Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	M > ˜P	M ∧ ˜S	S ∧ ˜P
1	1	1	1	0*	0	0
2	1	1	0	1	0	1*
3	1	0	1	1	0	0
4	1	0	0	1	0	1*
5	0	1	1	0*	1	0
6	0	1	0	1	1	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: IV-EOO

All P is not M.
Some M is not S.
∴ Some S is not P.

(∀x) (Px > ˜Mx)
(∃x) (Mx ∧ ˜Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∀	∃	∃
	S	M	P	P > ˜M	M ∧ ˜S	S ∧ ˜P
1	1	1	1	0*	0	0
2	1	1	0	1	0	1*
3	1	0	1	1	0	0
4	1	0	0	1	0	1*
5	0	1	1	0*	1	0
6	0	1	0	1	1	0
7	0	0	1	1	0	0
8	0	0	0	1	0	0
	1	1	1	1	1	0

Form: I-IAA

Some M is P.
All S is M.
∴ All S is P.

(∃x) (Mx ∧ Px)
(∀x) (Sx > Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ P	S > M	S > P
1	1	1	1	1	1	1
2	1	1	0	0	1	0
3	1	0	1	0	0*	1
4	1	0	0	0	0*	0
5	0	1	1	1	1	1
6	0	1	0	0	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: II-IAA

Some P is M.
All S is M.
∴ All S is P.

(∃x) (Px ∧ Mx)
(∀x) (Sx > Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ M	S > M	S > P
1	1	1	1	1	1	1
2	1	1	0	0	1	0
3	1	0	1	0	0*	1
4	1	0	0	0	0*	0
5	0	1	1	1	1	1
6	0	1	0	0	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: III-IAA

Some M is P.
All M is S.
∴ All S is P.

(∃x) (Mx ∧ Px)
(∀x) (Mx > Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ P	M > S	S > P
1	1	1	1	1	1	1
2	1	1	0	0	1	0
3	1	0	1	0	1	1
4	1	0	0	0	1	0
5	0	1	1	1	0*	1
6	0	1	0	0	0*	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-IAA

Some P is M.
All M is S.
∴ All S is P.

(∃x) (Px ∧ Mx)
(∀x) (Mx > Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ M	M > S	S > P
1	1	1	1	1	1	1
2	1	1	0	0	1	0
3	1	0	1	0	1	1
4	1	0	0	0	1	0
5	0	1	1	1	0*	1
6	0	1	0	0	0*	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: I-IAE

Some M is P.
All S is M.
∴ All S is not P.

(∃x) (Mx ∧ Px)
(∀x) (Sx > Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ P	S > M	S > ˜P
1	1	1	1	1	1	0
2	1	1	0	0	1	1
3	1	0	1	0	0*	0
4	1	0	0	0	0*	1
5	0	1	1	1	1	1
6	0	1	0	0	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: II-IAE

Some P is M.
All S is M.
∴ All S is not P.

(∃x) (Px ∧ Mx)
(∀x) (Sx > Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ M	S > M	S > ˜P
1	1	1	1	1	1	0
2	1	1	0	0	1	1
3	1	0	1	0	0*	0
4	1	0	0	0	0*	1
5	0	1	1	1	1	1
6	0	1	0	0	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: III-IAE

Some M is P.
All M is S.
∴ All S is not P.

(∃x) (Mx ∧ Px)
(∀x) (Mx > Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ P	M > S	S > ˜P
1	1	1	1	1	1	0
2	1	1	0	0	1	1
3	1	0	1	0	1	0
4	1	0	0	0	1	1
5	0	1	1	1	0*	1
6	0	1	0	0	0*	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-IAE

Some P is M.
All M is S.
∴ All S is not P.

(∃x) (Px ∧ Mx)
(∀x) (Mx > Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ M	M > S	S > ˜P
1	1	1	1	1	1	0
2	1	1	0	0	1	1
3	1	0	1	0	1	0
4	1	0	0	0	1	1
5	0	1	1	1	0*	1
6	0	1	0	0	0*	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: I-IAI

Some M is P.
All S is M.
∴ Some S is P.

(∃x) (Mx ∧ Px)
(∀x) (Sx > Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ P	S > M	S ∧ P
1	1	1	1	1	1	1*
2	1	1	0	0	1	0
3	1	0	1	0	0*	1*
4	1	0	0	0	0*	0
5	0	1	1	1	1	0
6	0	1	0	0	1	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: II-IAI

Some P is M.
All S is M.
∴ Some S is P.

(∃x) (Px ∧ Mx)
(∀x) (Sx > Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ M	S > M	S ∧ P
1	1	1	1	1	1	1*
2	1	1	0	0	1	0
3	1	0	1	0	0*	1*
4	1	0	0	0	0*	0
5	0	1	1	1	1	0
6	0	1	0	0	1	0
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)

Some M is P.
All M is S.
∴ Some S is P.

(∃x) (Mx ∧ Px)
(∀x) (Mx > Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ P	M > S	S ∧ P
1	1	1	1	1	1	1*
2	1	1	0	0	1	0
3	1	0	1	0	1	1*
4	1	0	0	0	1	0
5	0	1	1	1	0*	0
6	0	1	0	0	0*	0
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)

Some P is M.
All M is S.
∴ Some S is P.

(∃x) (Px ∧ Mx)
(∀x) (Mx > Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ M	M > S	S ∧ P
1	1	1	1	1	1	1*
2	1	1	0	0	1	0
3	1	0	1	0	1	1*
4	1	0	0	0	1	0
5	0	1	1	1	0*	0
6	0	1	0	0	0*	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	0	1	0

Form: I-IAO

Some M is P.
All S is M.
∴ Some S is not P.

(∃x) (Mx ∧ Px)
(∀x) (Sx > Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ P	S > M	S ∧ ˜P
1	1	1	1	1	1	0
2	1	1	0	0	1	1*
3	1	0	1	0	0*	0
4	1	0	0	0	0*	1*
5	0	1	1	1	1	0
6	0	1	0	0	1	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: II-IAO

Some P is M.
All S is M.
∴ Some S is not P.

(∃x) (Px ∧ Mx)
(∀x) (Sx > Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ M	S > M	S ∧ ˜P
1	1	1	1	1	1	0
2	1	1	0	0	1	1*
3	1	0	1	0	0*	0
4	1	0	0	0	0*	1*
5	0	1	1	1	1	0
6	0	1	0	0	1	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: III-IAO

Some M is P.
All M is S.
∴ Some S is not P.

(∃x) (Mx ∧ Px)
(∀x) (Mx > Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ P	M > S	S ∧ ˜P
1	1	1	1	1	1	0
2	1	1	0	0	1	1*
3	1	0	1	0	1	0
4	1	0	0	0	1	1*
5	0	1	1	1	0*	0
6	0	1	0	0	0*	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-IAO

Some P is M.
All M is S.
∴ Some S is not P.

(∃x) (Px ∧ Mx)
(∀x) (Mx > Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ M	M > S	S ∧ ˜P
1	1	1	1	1	1	0
2	1	1	0	0	1	1*
3	1	0	1	0	1	0
4	1	0	0	0	1	1*
5	0	1	1	1	0*	0
6	0	1	0	0	0*	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: I-IEA

Some M is P.
All S is not M.
∴ All S is P.

(∃x) (Mx ∧ Px)
(∀x) (Sx > ˜Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ P	S > ˜M	S > P
1	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	1
6	0	1	0	0	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: II-IEA

Some P is M.
All S is not M.
∴ All S is P.

(∃x) (Px ∧ Mx)
(∀x) (Sx > ˜Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ M	S > ˜M	S > P
1	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	1
6	0	1	0	0	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: III-IEA

Some M is P.
All M is not S.
∴ All S is P.

(∃x) (Mx ∧ Px)
(∀x) (Mx > ˜Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ P	M > ˜S	S > P
1	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	1
6	0	1	0	0	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-IEA

Some P is M.
All M is not S.
∴ All S is P.

(∃x) (Px ∧ Mx)
(∀x) (Mx > ˜Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ M	M > ˜S	S > P
1	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	1
6	0	1	0	0	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: I-IEE

Some M is P.
All S is not M.
∴ All S is not P.

(∃x) (Mx ∧ Px)
(∀x) (Sx > ˜Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ P	S > ˜M	S > ˜P
1	1	1	1	1	0*	0
2	1	1	0	0	0*	1
3	1	0	1	0	1	0
4	1	0	0	0	1	1
5	0	1	1	1	1	1
6	0	1	0	0	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: II-IEE

Some P is M.
All S is not M.
∴ All S is not P.

(∃x) (Px ∧ Mx)
(∀x) (Sx > ˜Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ M	S > ˜M	S > ˜P
1	1	1	1	1	0*	0
2	1	1	0	0	0*	1
3	1	0	1	0	1	0
4	1	0	0	0	1	1
5	0	1	1	1	1	1
6	0	1	0	0	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: III-IEE

Some M is P.
All M is not S.
∴ All S is not P.

(∃x) (Mx ∧ Px)
(∀x) (Mx > ˜Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ P	M > ˜S	S > ˜P
1	1	1	1	1	0*	0
2	1	1	0	0	0*	1
3	1	0	1	0	1	0
4	1	0	0	0	1	1
5	0	1	1	1	1	1
6	0	1	0	0	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-IEE

Some P is M.
All M is not S.
∴ All S is not P.

(∃x) (Px ∧ Mx)
(∀x) (Mx > ˜Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ M	M > ˜S	S > ˜P
1	1	1	1	1	0*	0
2	1	1	0	0	0*	1
3	1	0	1	0	1	0
4	1	0	0	0	1	1
5	0	1	1	1	1	1
6	0	1	0	0	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: I-IEI

Some M is P.
All S is not M.
∴ Some S is P.

(∃x) (Mx ∧ Px)
(∀x) (Sx > ˜Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ P	S > ˜M	S ∧ P
1	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
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: II-IEI

Some P is M.
All S is not M.
∴ Some S is P.

(∃x) (Px ∧ Mx)
(∀x) (Sx > ˜Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ M	S > ˜M	S ∧ P
1	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
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: III-IEI

Some M is P.
All M is not S.
∴ Some S is P.

(∃x) (Mx ∧ Px)
(∀x) (Mx > ˜Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ P	M > ˜S	S ∧ P
1	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
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-IEI

Some P is M.
All M is not S.
∴ Some S is P.

(∃x) (Px ∧ Mx)
(∀x) (Mx > ˜Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ M	M > ˜S	S ∧ P
1	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
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: I-IEO

Some M is P.
All S is not M.
∴ Some S is not P.

(∃x) (Mx ∧ Px)
(∀x) (Sx > ˜Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ P	S > ˜M	S ∧ ˜P
1	1	1	1	1	0*	0
2	1	1	0	0	0*	1*
3	1	0	1	0	1	0
4	1	0	0	0	1	1*
5	0	1	1	1	1	0
6	0	1	0	0	1	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: II-IEO

Some P is M.
All S is not M.
∴ Some S is not P.

(∃x) (Px ∧ Mx)
(∀x) (Sx > ˜Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ M	S > ˜M	S ∧ ˜P
1	1	1	1	1	0*	0
2	1	1	0	0	0*	1*
3	1	0	1	0	1	0
4	1	0	0	0	1	1*
5	0	1	1	1	1	0
6	0	1	0	0	1	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: III-IEO

Some M is P.
All M is not S.
∴ Some S is not P.

(∃x) (Mx ∧ Px)
(∀x) (Mx > ˜Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ P	M > ˜S	S ∧ ˜P
1	1	1	1	1	0*	0
2	1	1	0	0	0*	1*
3	1	0	1	0	1	0
4	1	0	0	0	1	1*
5	0	1	1	1	1	0
6	0	1	0	0	1	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-IEO

Some P is M.
All M is not S.
∴ Some S is not P.

(∃x) (Px ∧ Mx)
(∀x) (Mx > ˜Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ M	M > ˜S	S ∧ ˜P
1	1	1	1	1	0*	0
2	1	1	0	0	0*	1*
3	1	0	1	0	1	0
4	1	0	0	0	1	1*
5	0	1	1	1	1	0
6	0	1	0	0	1	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: I-IIA

Some M is P.
Some S is M.
∴ All S is P.

$(\exists x)(Mx \land Px)$
$(\exists x)(Sx \land Mx)$
$\therefore (\forall x)(Sx > Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\forall$
	S	M	P	$M \land P$	$S \land M$	$S > P$
1	1	1	1	1	1	1
2	1	1	0	0	1	0
3	1	0	1	0	0	1
4	1	0	0	0	0	0
5	0	1	1	1	0	1
6	0	1	0	0	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: II-IIA

Some P is M.
Some S is M.
∴ All S is P.

$(\exists x)(Px \land Mx)$
$(\exists x)(Sx \land Mx)$
$\therefore (\forall x)(Sx > Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\forall$
	S	M	P	$P \land M$	$S \land M$	$S > P$
1	1	1	1	1	1	1
2	1	1	0	0	1	0
3	1	0	1	0	0	1
4	1	0	0	0	0	0
5	0	1	1	1	0	1
6	0	1	0	0	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: III-IIA

Some M is P.
Some M is S.
∴ All S is P.

$(\exists x)(Mx \land Px)$
$(\exists x)(Mx \land Sx)$
$\therefore (\forall x)(Sx > Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\forall$
	S	M	P	$M \land P$	$M \land S$	$S > P$
1	1	1	1	1	1	1
2	1	1	0	0	1	0
3	1	0	1	0	0	1
4	1	0	0	0	0	0
5	0	1	1	1	0	1
6	0	1	0	0	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: IV-IIA

Some P is M.
Some M is S.
∴ All S is P.

$(\exists x)(Px \land Mx)$
$(\exists x)(Mx \land Sx)$
$\therefore (\forall x)(Sx > Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\forall$
	S	M	P	$P \land M$	$M \land S$	$S > P$
1	1	1	1	1	1	1
2	1	1	0	0	1	0
3	1	0	1	0	0	1
4	1	0	0	0	0	0
5	0	1	1	1	0	1
6	0	1	0	0	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: I-IIE

Some M is P.
Some S is M.
∴ All S is not P.

$(\exists x)(Mx \land Px)$
$(\exists x)(Sx \land Mx)$
$\therefore (\forall x)(Sx > {\sim}Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\forall$
	S	M	P	$M \land P$	$S \land M$	$S > {\sim}P$
1	1	1	1	1	1	0
2	1	1	0	0	1	1
3	1	0	1	0	0	0
4	1	0	0	0	0	1
5	0	1	1	1	0	1
6	0	1	0	0	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: II-IIE

Some P is M.
Some S is M.
∴ All S is not P.

$(\exists x)(Px \land Mx)$
$(\exists x)(Sx \land Mx)$
$\therefore (\forall x)(Sx > {\sim}Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\forall$
	S	M	P	$P \land M$	$S \land M$	$S > {\sim}P$
1	1	1	1	1	1	0
2	1	1	0	0	1	1
3	1	0	1	0	0	0
4	1	0	0	0	0	1
5	0	1	1	1	0	1
6	0	1	0	0	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: III-IIE

Some M is P.
Some M is S.
∴ All S is not P.

$(\exists x)(Mx \land Px)$
$(\exists x)(Mx \land Sx)$
$\therefore (\forall x)(Sx > {\sim}Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\forall$
	S	M	P	$M \land P$	$M \land S$	$S > {\sim}P$
1	1	1	1	1	1	0
2	1	1	0	0	1	1
3	1	0	1	0	0	0
4	1	0	0	0	0	1
5	0	1	1	1	0	1
6	0	1	0	0	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: IV-IIE

Some P is M.
Some M is S.
∴ All S is not P.

$(\exists x)(Px \land Mx)$
$(\exists x)(Mx \land Sx)$
$\therefore (\forall x)(Sx > {\sim}Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\forall$
	S	M	P	$P \land M$	$M \land S$	$S > {\sim}P$
1	1	1	1	1	1	0
2	1	1	0	0	1	1
3	1	0	1	0	0	0
4	1	0	0	0	0	1
5	0	1	1	1	0	1
6	0	1	0	0	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: I-III

Some M is P.
Some S is M.
∴ Some S is P.

$(\exists x)(Mx \land Px)$
$(\exists x)(Sx \land Mx)$
$\therefore (\exists x)(Sx \land Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$
	S	M	P	$M \land P$	$S \land M$	$S \land P$
1	1	1	1	1	1	1*
2	1	1	0	0	1	0
3	1	0	1	0	0	1*
4	1	0	0	0	0	0
5	0	1	1	1	0	0
6	0	1	0	0	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: II-III

Some P is M.
Some S is M.
∴ Some S is P.

$(\exists x)(Px \land Mx)$
$(\exists x)(Sx \land Mx)$
$\therefore (\exists x)(Sx \land Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$
	S	M	P	$P \land M$	$S \land M$	$S \land P$
1	1	1	1	1	1	1*
2	1	1	0	0	1	0
3	1	0	1	0	0	1*
4	1	0	0	0	0	0
5	0	1	1	1	0	0
6	0	1	0	0	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: III-III

Some M is P.
Some M is S.
∴ Some S is P.

$(\exists x)(Mx \land Px)$
$(\exists x)(Mx \land Sx)$
$\therefore (\exists x)(Sx \land Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$
	S	M	P	$M \land P$	$M \land S$	$S \land P$
1	1	1	1	1	1	1*
2	1	1	0	0	1	0
3	1	0	1	0	0	1*
4	1	0	0	0	0	0
5	0	1	1	1	0	0
6	0	1	0	0	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: IV-III

Some P is M.
Some M is S.
∴ Some S is P.

$(\exists x)(Px \land Mx)$
$(\exists x)(Mx \land Sx)$
$\therefore (\exists x)(Sx \land Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$
	S	M	P	$P \land M$	$M \land S$	$S \land P$
1	1	1	1	1	1	1*
2	1	1	0	0	1	0
3	1	0	1	0	0	1*
4	1	0	0	0	0	0
5	0	1	1	1	0	0
6	0	1	0	0	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: I-IIO

Some M is P.
Some S is M.
∴ Some S is not P.

$(\exists x)(Mx \land Px)$
$(\exists x)(Sx \land Mx)$
$\therefore (\exists x)(Sx \land {\sim}Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$
	S	M	P	$M \land P$	$S \land M$	$S \land {\sim}P$
1	1	1	1	1	1	0
2	1	1	0	0	1	1*
3	1	0	1	0	0	0
4	1	0	0	0	0	1*
5	0	1	1	1	0	0
6	0	1	0	0	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: II-IIO

Some P is M.
Some S is M.
∴ Some S is not P.

$(\exists x)(Px \land Mx)$
$(\exists x)(Sx \land Mx)$
$\therefore (\exists x)(Sx \land {\sim}Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$
	S	M	P	$P \land M$	$S \land M$	$S \land {\sim}P$
1	1	1	1	1	1	0
2	1	1	0	0	1	1*
3	1	0	1	0	0	0
4	1	0	0	0	0	1*
5	0	1	1	1	0	0
6	0	1	0	0	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: III-IIO

Some M is P.
Some M is S.
∴ Some S is not P.

$(\exists x)(Mx \land Px)$
$(\exists x)(Mx \land Sx)$
$\therefore (\exists x)(Sx \land {\sim}Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$
	S	M	P	$M \land P$	$M \land S$	$S \land {\sim}P$
1	1	1	1	1	1	0
2	1	1	0	0	1	1*
3	1	0	1	0	0	0
4	1	0	0	0	0	1*
5	0	1	1	1	0	0
6	0	1	0	0	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: IV-IIO

Some P is M.
Some M is S.
∴ Some S is not P.

$(\exists x)(Px \land Mx)$
$(\exists x)(Mx \land Sx)$
$\therefore (\exists x)(Sx \land {\sim}Px)$

	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$	$\exists$
	S	M	P	$P \land M$	$M \land S$	$S \land {\sim}P$
1	1	1	1	1	1	0
2	1	1	0	0	1	1*
3	1	0	1	0	0	0
4	1	0	0	0	0	1*
5	0	1	1	1	0	0
6	0	1	0	0	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: I-IOA

Some M is P.
Some S is not M.
∴ All S is P.

(∃x) (Mx ∧ Px)
(∃x) (Sx ∧ ~Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ P	S ∧ ~M	S > P
1	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	1
6	0	1	0	0	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: II-IOA

Some P is M.
Some S is not M.
∴ All S is P.

(∃x) (Px ∧ Mx)
(∃x) (Sx ∧ ~Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ M	S ∧ ~M	S > P
1	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	1
6	0	1	0	0	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: III-IOA

Some M is P.
Some M is not S.
∴ All S is P.

(∃x) (Mx ∧ Px)
(∃x) (Mx ∧ ~Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ P	M ∧ ~S	S > P
1	1	1	1	1	0	1
2	1	1	0	0	0	0
3	1	0	1	0	0	1
4	1	0	0	0	0	0
5	0	1	1	1	1	1
6	0	1	0	0	1	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: IV-IOA

Some P is M.
Some M is not S.
∴ All S is P.

(∃x) (Px ∧ Mx)
(∃x) (Mx ∧ ~Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ M	M ∧ ~S	S > P
1	1	1	1	1	0	1
2	1	1	0	0	0	0
3	1	0	1	0	0	1
4	1	0	0	0	0	0
5	0	1	1	1	1	1
6	0	1	0	0	1	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: I-IOE

Some M is P.
Some S is not M.
∴ All S is not P.

(∃x) (Mx ∧ Px)
(∃x) (Sx ∧ ~Mx)
∴ (∀x) (Sx > ~Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ P	S ∧ ~M	S > ~P
1	1	1	1	1	0	0
2	1	1	0	0	0	1
3	1	0	1	0	1	0
4	1	0	0	0	1	1
5	0	1	1	1	0	1
6	0	1	0	0	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: II-IOE

Some P is M.
Some S is not M.
∴ All S is not P.

(∃x) (Px ∧ Mx)
(∃x) (Sx ∧ ~Mx)
∴ (∀x) (Sx > ~Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ M	S ∧ ~M	S > ~P
1	1	1	1	1	0	0
2	1	1	0	0	0	1
3	1	0	1	0	1	0
4	1	0	0	0	1	1
5	0	1	1	1	0	1
6	0	1	0	0	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: III-IOE

Some M is P.
Some M is not S.
∴ All S is not P.

(∃x) (Mx ∧ Px)
(∃x) (Mx ∧ ~Sx)
∴ (∀x) (Sx > ~Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ P	M ∧ ~S	S > ~P
1	1	1	1	1	0	0
2	1	1	0	0	0	1
3	1	0	1	0	0	0
4	1	0	0	0	0	1
5	0	1	1	1	1	1
6	0	1	0	0	1	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: IV-IOE

Some P is M.
Some M is not S.
∴ All S is not P.

(∃x) (Px ∧ Mx)
(∃x) (Mx ∧ ~Sx)
∴ (∀x) (Sx > ~Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ M	M ∧ ~S	S > ~P
1	1	1	1	1	0	0
2	1	1	0	0	0	1
3	1	0	1	0	0	0
4	1	0	0	0	0	1
5	0	1	1	1	1	1
6	0	1	0	0	1	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: I-IOI

Some M is P.
Some S is not M.
∴ Some S is P.

(∃x) (Mx ∧ Px)
(∃x) (Sx ∧ ~Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ P	S ∧ ~M	S ∧ P
1	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	0
6	0	1	0	0	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: II-IOI

Some P is M.
Some S is not M.
∴ Some S is P.

(∃x) (Px ∧ Mx)
(∃x) (Sx ∧ ~Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ M	S ∧ ~M	S ∧ P
1	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	0
6	0	1	0	0	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: III-IOI

Some M is P.
Some M is not S.
∴ Some S is P.

(∃x) (Mx ∧ Px)
(∃x) (Mx ∧ ~Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ P	M ∧ ~S	S ∧ P
1	1	1	1	1	0	1*
2	1	1	0	0	0	0
3	1	0	1	0	0	1*
4	1	0	0	0	0	0
5	0	1	1	1	1	0
6	0	1	0	0	1	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: IV-IOI

Some P is M.
Some M is not S.
∴ Some S is P.

(∃x) (Px ∧ Mx)
(∃x) (Mx ∧ ~Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ M	M ∧ ~S	S ∧ P
1	1	1	1	1	0	1*
2	1	1	0	0	0	0
3	1	0	1	0	0	1*
4	1	0	0	0	0	0
5	0	1	1	1	1	0
6	0	1	0	0	1	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: I-IOO

Some M is P.
Some S is not M.
∴ Some S is not P.

(∃x) (Mx ∧ Px)
(∃x) (Sx ∧ ~Mx)
∴ (∃x) (Sx ∧ ~Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ P	S ∧ ~M	S ∧ ~P
1	1	1	1	1	0	0
2	1	1	0	0	0	1*
3	1	0	1	0	1	0
4	1	0	0	0	1	1*
5	0	1	1	1	0	0
6	0	1	0	0	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: II-IOO

Some P is M.
Some S is not M.
∴ Some S is not P.

(∃x) (Px ∧ Mx)
(∃x) (Sx ∧ ~Mx)
∴ (∃x) (Sx ∧ ~Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ M	S ∧ ~M	S ∧ ~P
1	1	1	1	1	0	0
2	1	1	0	0	0	1*
3	1	0	1	0	1	0
4	1	0	0	0	1	1*
5	0	1	1	1	0	0
6	0	1	0	0	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: III-IOO

Some M is P.
Some M is not S.
∴ Some S is not P.

(∃x) (Mx ∧ Px)
(∃x) (Mx ∧ ~Sx)
∴ (∃x) (Sx ∧ ~Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ P	M ∧ ~S	S ∧ ~P
1	1	1	1	1	0	0
2	1	1	0	0	0	1*
3	1	0	1	0	0	0
4	1	0	0	0	0	1*
5	0	1	1	1	1	0
6	0	1	0	0	1	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: IV-IOO

Some P is M.
Some M is not S.
∴ Some S is not P.

(∃x) (Px ∧ Mx)
(∃x) (Mx ∧ ~Sx)
∴ (∃x) (Sx ∧ ~Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ M	M ∧ ~S	S ∧ ~P
1	1	1	1	1	0	0
2	1	1	0	0	0	1*
3	1	0	1	0	0	0
4	1	0	0	0	0	1*
5	0	1	1	1	1	0
6	0	1	0	0	1	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: I-OAA

Some M is not P.
All S is M.
∴ All S is P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Sx > Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ ˜P	S > M	S > P
1	1	1	1	0	1	1
2	1	1	0	1	1	0
3	1	0	1	0	0*	1
4	1	0	0	0	0*	0
5	0	1	1	0	1	1
6	0	1	0	1	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: II-OAA

Some P is not M.
All S is M.
∴ All S is P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Sx > Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ ˜M	S > M	S > P
1	1	1	1	0	1	1
2	1	1	0	0	1	0
3	1	0	1	1	0*	1
4	1	0	0	0	0*	0
5	0	1	1	0	1	1
6	0	1	0	0	1	1
7	0	0	1	1	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: III-OAA

Some M is not P.
All M is S.
∴ All S is P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Mx > Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ ˜P	M > S	S > P
1	1	1	1	0	1	1
2	1	1	0	1	1	0
3	1	0	1	0	1	1
4	1	0	0	0	1	0
5	0	1	1	0	0*	1
6	0	1	0	1	0*	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-OAA

Some P is not M.
All M is S.
∴ All S is P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Mx > Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ ˜M	M > S	S > P
1	1	1	1	0	1	1
2	1	1	0	0	1	0
3	1	0	1	1	1	1
4	1	0	0	0	1	0
5	0	1	1	0	0*	1
6	0	1	0	0	0*	1
7	0	0	1	1	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: I-OAE

Some M is not P.
All S is M.
∴ All S is not P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Sx > Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ ˜P	S > M	S > ˜P
1	1	1	1	0	1	0
2	1	1	0	1	1	1
3	1	0	1	0	0*	0
4	1	0	0	0	0*	1
5	0	1	1	0	1	1
6	0	1	0	1	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: II-OAE

Some P is not M.
All S is M.
∴ All S is not P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Sx > Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ ˜M	S > M	S > ˜P
1	1	1	1	0	1	0
2	1	1	0	0	1	1
3	1	0	1	1	0*	0
4	1	0	0	0	0*	1
5	0	1	1	0	1	1
6	0	1	0	0	1	1
7	0	0	1	1	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: III-OAE

Some M is not P.
All M is S.
∴ All S is not P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Mx > Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ ˜P	M > S	S > ˜P
1	1	1	1	0	1	0
2	1	1	0	1	1	1
3	1	0	1	0	1	0
4	1	0	0	0	1	1
5	0	1	1	0	0*	1
6	0	1	0	1	0*	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-OAE

Some P is not M.
All M is S.
∴ All S is not P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Mx > Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ ˜M	M > S	S > ˜P
1	1	1	1	0	1	0
2	1	1	0	0	1	1
3	1	0	1	1	1	0
4	1	0	0	0	1	1
5	0	1	1	0	0*	1
6	0	1	0	0	0*	1
7	0	0	1	1	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: I-OAI

Some M is not P.
All S is M.
∴ Some S is P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Sx > Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ ˜P	S > M	S ∧ P
1	1	1	1	0	1	1*
2	1	1	0	1	1	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	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: II-OAI

Some P is not M.
All S is M.
∴ Some S is P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Sx > Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ ˜M	S > M	S ∧ P
1	1	1	1	0	1	1*
2	1	1	0	0	1	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	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: III-OAI

Some M is not P.
All M is S.
∴ Some S is P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Mx > Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ ˜P	M > S	S ∧ P
1	1	1	1	0	1	1*
2	1	1	0	1	1	0
3	1	0	1	0	1	1*
4	1	0	0	0	1	0
5	0	1	1	0	0*	0
6	0	1	0	1	0*	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-OAI

Some P is not M.
All M is S.
∴ Some S is P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Mx > Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ ˜M	M > S	S ∧ P
1	1	1	1	0	1	1*
2	1	1	0	0	1	0
3	1	0	1	1	1	1*
4	1	0	0	0	1	0
5	0	1	1	0	0*	0
6	0	1	0	0	0*	0
7	0	0	1	1	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: I-OAO

Some M is not P.
All S is M.
∴ Some S is not P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Sx > Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ ˜P	S > M	S ∧ ˜P
1	1	1	1	0	1	0
2	1	1	0	1	1	1*
3	1	0	1	0	0*	0
4	1	0	0	0	0*	1*
5	0	1	1	0	1	0
6	0	1	0	1	1	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: II-OAO

Some P is not M.
All S is M.
∴ Some S is not P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Sx > Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ ˜M	S > M	S ∧ ˜P
1	1	1	1	0	1	0
2	1	1	0	0	1	1*
3	1	0	1	1	0*	0
4	1	0	0	0	0*	1*
5	0	1	1	0	1	0
6	0	1	0	0	1	0
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)

Some M is not P.
All M is S.
∴ Some S is not P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Mx > Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ ˜P	M > S	S ∧ ˜P
1	1	1	1	0	1	0
2	1	1	0	1	1	1*
3	1	0	1	0	1	0
4	1	0	0	0	1	1*
5	0	1	1	0	0*	0
6	0	1	0	1	0*	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	0	1	0

Form: IV-OAO

Some P is not M.
All M is S.
∴ Some S is not P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Mx > Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ ˜M	M > S	S ∧ ˜P
1	1	1	1	0	1	0
2	1	1	0	0	1	1*
3	1	0	1	1	1	0
4	1	0	0	0	1	1*
5	0	1	1	0	0*	0
6	0	1	0	0	0*	0
7	0	0	1	1	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: I-OEA

Some M is not P.
All S is not M.
∴ All S is P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Sx > ˜Mx)
∴ (∀x) (Sx > 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	0	1	1
4	1	0	0	0	1	0
5	0	1	1	0	1	1
6	0	1	0	1	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: II-OEA

Some P is not M.
All S is not M.
∴ All S is P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Sx > ˜Mx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ ˜M	S > ˜M	S > P
1	1	1	1	0	0*	1
2	1	1	0	0	0*	0
3	1	0	1	1	1	1
4	1	0	0	0	1	0
5	0	1	1	0	1	1
6	0	1	0	0	1	1
7	0	0	1	1	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: III-OEA

Some M is not P.
All M is not S.
∴ All S is P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Mx > ˜Sx)
∴ (∀x) (Sx > Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ ˜P	M > ˜S	S > P
1	1	1	1	0	0*	1
2	1	1	0	1	0*	0
3	1	0	1	0	1	1
4	1	0	0	0	1	0
5	0	1	1	0	1	1
6	0	1	0	1	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-OEA

Some P is not M.
All M is not S.
∴ All S is P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Mx > ˜Sx)
∴ (∀x) (Sx > 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	1	1
4	1	0	0	0	1	0
5	0	1	1	0	1	1
6	0	1	0	0	1	1
7	0	0	1	1	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: I-OEE

Some M is not P.
All S is not M.
∴ All S is not P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Sx > ˜Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ ˜P	S > ˜M	S > ˜P
1	1	1	1	0	0*	0
2	1	1	0	1	0*	1
3	1	0	1	0	1	0
4	1	0	0	0	1	1
5	0	1	1	0	1	1
6	0	1	0	1	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: II-OEE

Some P is not M.
All S is not M.
∴ All S is not P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Sx > ˜Mx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ ˜M	S > ˜M	S > ˜P
1	1	1	1	0	0*	0
2	1	1	0	0	0*	1
3	1	0	1	1	1	0
4	1	0	0	0	1	1
5	0	1	1	0	1	1
6	0	1	0	0	1	1
7	0	0	1	1	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: III-OEE

Some M is not P.
All M is not S.
∴ All S is not P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Mx > ˜Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	M ∧ ˜P	M > ˜S	S > ˜P
1	1	1	1	0	0*	0
2	1	1	0	1	0*	1
3	1	0	1	0	1	0
4	1	0	0	0	1	1
5	0	1	1	0	1	1
6	0	1	0	1	1	1
7	0	0	1	0	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: IV-OEE

Some P is not M.
All M is not S.
∴ All S is not P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Mx > ˜Sx)
∴ (∀x) (Sx > ˜Px)

	∃	∃	∃	∃	∀	∀
	S	M	P	P ∧ ˜M	M > ˜S	S > ˜P
1	1	1	1	0	0*	0
2	1	1	0	0	0*	1
3	1	0	1	1	1	0
4	1	0	0	0	1	1
5	0	1	1	0	1	1
6	0	1	0	0	1	1
7	0	0	1	1	1	1
8	0	0	0	0	1	1
	1	1	1	1	1	0

Form: I-OEI

Some M is not P.
All S is not M.
∴ Some S is P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Sx > ˜Mx)
∴ (∃x) (Sx ∧ 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	0	1	1*
4	1	0	0	0	1	0
5	0	1	1	0	1	0
6	0	1	0	1	1	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: II-OEI

Some P is not M.
All S is not M.
∴ Some S is P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Sx > ˜Mx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ ˜M	S > ˜M	S ∧ P
1	1	1	1	0	0*	1*
2	1	1	0	0	0*	0
3	1	0	1	1	1	1*
4	1	0	0	0	1	0
5	0	1	1	0	1	0
6	0	1	0	0	1	0
7	0	0	1	1	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: III-OEI

Some M is not P.
All M is not S.
∴ Some S is P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Mx > ˜Sx)
∴ (∃x) (Sx ∧ Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ ˜P	M > ˜S	S ∧ P
1	1	1	1	0	0*	1*
2	1	1	0	1	0*	0
3	1	0	1	0	1	1*
4	1	0	0	0	1	0
5	0	1	1	0	1	0
6	0	1	0	1	1	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-OEI

Some P is not M.
All M is not S.
∴ Some S is P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Mx > ˜Sx)
∴ (∃x) (Sx ∧ 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	1	1*
4	1	0	0	0	1	0
5	0	1	1	0	1	0
6	0	1	0	0	1	0
7	0	0	1	1	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: I-OEO

Some M is not P.
All S is not M.
∴ Some S is not P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Sx > ˜Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ ˜P	S > ˜M	S ∧ ˜P
1	1	1	1	0	0*	0
2	1	1	0	1	0*	1*
3	1	0	1	0	1	0
4	1	0	0	0	1	1*
5	0	1	1	0	1	0
6	0	1	0	1	1	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: II-OEO

Some P is not M.
All S is not M.
∴ Some S is not P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Sx > ˜Mx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ ˜M	S > ˜M	S ∧ ˜P
1	1	1	1	0	0*	0
2	1	1	0	0	0*	1*
3	1	0	1	1	1	0
4	1	0	0	0	1	1*
5	0	1	1	0	1	0
6	0	1	0	0	1	0
7	0	0	1	1	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: III-OEO

Some M is not P.
All M is not S.
∴ Some S is not P.

(∃x) (Mx ∧ ˜Px)
(∀x) (Mx > ˜Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	M ∧ ˜P	M > ˜S	S ∧ ˜P
1	1	1	1	0	0*	0
2	1	1	0	1	0*	1*
3	1	0	1	0	1	0
4	1	0	0	0	1	1*
5	0	1	1	0	1	0
6	0	1	0	1	1	0
7	0	0	1	0	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: IV-OEO

Some P is not M.
All M is not S.
∴ Some S is not P.

(∃x) (Px ∧ ˜Mx)
(∀x) (Mx > ˜Sx)
∴ (∃x) (Sx ∧ ˜Px)

	∃	∃	∃	∃	∀	∃
	S	M	P	P ∧ ˜M	M > ˜S	S ∧ ˜P
1	1	1	1	0	0*	0
2	1	1	0	0	0*	1*
3	1	0	1	1	1	0
4	1	0	0	0	1	1*
5	0	1	1	0	1	0
6	0	1	0	0	1	0
7	0	0	1	1	1	0
8	0	0	0	0	1	0
	1	1	1	1	1	0

Form: I-OIA

Some M is not P.
Some S is M.
∴ All S is P.

(∃x)(Mx ∧ ˜Px)
(∃x)(Sx ∧ Mx)
∴ (∀x)(Sx > Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ ˜P	S ∧ M	S > P
1	1	1	1	0	1	1
2	1	1	0	1	1	0
3	1	0	1	0	0	1
4	1	0	0	0	0	0
5	0	1	1	0	0	1
6	0	1	0	1	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: II-OIA

Some P is not M.
Some S is M.
∴ All S is P.

(∃x)(Px ∧ ˜Mx)
(∃x)(Sx ∧ Mx)
∴ (∀x)(Sx > Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ ˜M	S ∧ M	S > P
1	1	1	1	0	1	1
2	1	1	0	0	1	0
3	1	0	1	1	0	1
4	1	0	0	0	0	0
5	0	1	1	0	0	1
6	0	1	0	0	0	1
7	0	0	1	1	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: III-OIA

Some M is not P.
Some M is S.
∴ All S is P.

(∃x)(Mx ∧ ˜Px)
(∃x)(Mx ∧ Sx)
∴ (∀x)(Sx > Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ ˜P	M ∧ S	S > P
1	1	1	1	0	1	1
2	1	1	0	1	1	0
3	1	0	1	0	0	1
4	1	0	0	0	0	0
5	0	1	1	0	0	1
6	0	1	0	1	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: IV-OIA

Some P is not M.
Some M is S.
∴ All S is P.

(∃x)(Px ∧ ˜Mx)
(∃x)(Mx ∧ Sx)
∴ (∀x)(Sx > Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ ˜M	M ∧ S	S > P
1	1	1	1	0	1	1
2	1	1	0	0	1	0
3	1	0	1	1	0	1
4	1	0	0	0	0	0
5	0	1	1	0	0	1
6	0	1	0	0	0	1
7	0	0	1	1	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: I-OIE

Some M is not P.
Some S is M.
∴ All S is not P.

(∃x)(Mx ∧ ˜Px)
(∃x)(Sx ∧ Mx)
∴ (∀x)(Sx > ˜Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ ˜P	S ∧ M	S > ˜P
1	1	1	1	0	1	0
2	1	1	0	1	1	1
3	1	0	1	0	0	0
4	1	0	0	0	0	1
5	0	1	1	0	0	1
6	0	1	0	1	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: II-OIE

Some P is not M.
Some S is M.
∴ All S is not P.

(∃x)(Px ∧ ˜Mx)
(∃x)(Sx ∧ Mx)
∴ (∀x)(Sx > ˜Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ ˜M	S ∧ M	S > ˜P
1	1	1	1	0	1	0
2	1	1	0	0	1	1
3	1	0	1	1	0	0
4	1	0	0	0	0	1
5	0	1	1	0	0	1
6	0	1	0	0	0	1
7	0	0	1	1	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: III-OIE

Some M is not P.
Some M is S.
∴ All S is not P.

(∃x)(Mx ∧ ˜Px)
(∃x)(Mx ∧ Sx)
∴ (∀x)(Sx > ˜Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ ˜P	M ∧ S	S > ˜P
1	1	1	1	0	1	0
2	1	1	0	1	1	1
3	1	0	1	0	0	0
4	1	0	0	0	0	1
5	0	1	1	0	0	1
6	0	1	0	1	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: IV-OIE

Some P is not M.
Some M is S.
∴ All S is not P.

(∃x)(Px ∧ ˜Mx)
(∃x)(Mx ∧ Sx)
∴ (∀x)(Sx > ˜Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ ˜M	M ∧ S	S > ˜P
1	1	1	1	0	1	0
2	1	1	0	0	1	1
3	1	0	1	1	0	0
4	1	0	0	0	0	1
5	0	1	1	0	0	1
6	0	1	0	0	0	1
7	0	0	1	1	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: I-OII

Some M is not P.
Some S is M.
∴ Some S is P.

(∃x)(Mx ∧ ˜Px)
(∃x)(Sx ∧ Mx)
∴ (∃x)(Sx ∧ Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ ˜P	S ∧ M	S ∧ P
1	1	1	1	0	1	1*
2	1	1	0	1	1	0
3	1	0	1	0	0	1*
4	1	0	0	0	0	0
5	0	1	1	0	0	0
6	0	1	0	1	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: II-OII

Some P is not M.
Some S is M.
∴ Some S is P.

(∃x)(Px ∧ ˜Mx)
(∃x)(Sx ∧ Mx)
∴ (∃x)(Sx ∧ Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ ˜M	S ∧ M	S ∧ P
1	1	1	1	0	1	1*
2	1	1	0	0	1	0
3	1	0	1	1	0	1*
4	1	0	0	0	0	0
5	0	1	1	0	0	0
6	0	1	0	0	0	0
7	0	0	1	1	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: III-OII

Some M is not P.
Some M is S.
∴ Some S is P.

(∃x)(Mx ∧ ˜Px)
(∃x)(Mx ∧ Sx)
∴ (∃x)(Sx ∧ Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ ˜P	M ∧ S	S ∧ P
1	1	1	1	0	1	1*
2	1	1	0	1	1	0
3	1	0	1	0	0	1*
4	1	0	0	0	0	0
5	0	1	1	0	0	0
6	0	1	0	1	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: IV-OII

Some P is not M.
Some M is S.
∴ Some S is P.

(∃x)(Px ∧ ˜Mx)
(∃x)(Mx ∧ Sx)
∴ (∃x)(Sx ∧ Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ ˜M	M ∧ S	S ∧ P
1	1	1	1	0	1	1*
2	1	1	0	0	1	0
3	1	0	1	1	0	1*
4	1	0	0	0	0	0
5	0	1	1	0	0	0
6	0	1	0	0	0	0
7	0	0	1	1	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: I-OIO

Some M is not P.
Some S is M.
∴ Some S is not P.

(∃x)(Mx ∧ ˜Px)
(∃x)(Sx ∧ Mx)
∴ (∃x)(Sx ∧ ˜Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ ˜P	S ∧ M	S ∧ ˜P
1	1	1	1	0	1	0
2	1	1	0	1	1	1*
3	1	0	1	0	0	0
4	1	0	0	0	0	1*
5	0	1	1	0	0	0
6	0	1	0	1	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: II-OIO

Some P is not M.
Some S is M.
∴ Some S is not P.

(∃x)(Px ∧ ˜Mx)
(∃x)(Sx ∧ Mx)
∴ (∃x)(Sx ∧ ˜Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ ˜M	S ∧ M	S ∧ ˜P
1	1	1	1	0	1	0
2	1	1	0	0	1	1*
3	1	0	1	1	0	0
4	1	0	0	0	0	1*
5	0	1	1	0	0	0
6	0	1	0	0	0	0
7	0	0	1	1	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: III-OIO

Some M is not P.
Some M is S.
∴ Some S is not P.

(∃x)(Mx ∧ ˜Px)
(∃x)(Mx ∧ Sx)
∴ (∃x)(Sx ∧ ˜Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ ˜P	M ∧ S	S ∧ ˜P
1	1	1	1	0	1	0
2	1	1	0	1	1	1*
3	1	0	1	0	0	0
4	1	0	0	0	0	1*
5	0	1	1	0	0	0
6	0	1	0	1	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: IV-OIO

Some P is not M.
Some M is S.
∴ Some S is not P.

(∃x)(Px ∧ ˜Mx)
(∃x)(Mx ∧ Sx)
∴ (∃x)(Sx ∧ ˜Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ ˜M	M ∧ S	S ∧ ˜P
1	1	1	1	0	1	0
2	1	1	0	0	1	1*
3	1	0	1	1	0	0
4	1	0	0	0	0	1*
5	0	1	1	0	0	0
6	0	1	0	0	0	0
7	0	0	1	1	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: I-OOA

Some M is not P.
Some S is not M.
∴ All S is P.

(∃x)(Mx ∧ ~Px)
(∃x)(Sx ∧ ~Mx)
∴ (∀x)(Sx > 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	0	1	1
4	1	0	0	0	1	0
5	0	1	1	0	0	1
6	0	1	0	1	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: II-OOA

Some P is not M.
Some S is not M.
∴ All S is P.

(∃x)(Px ∧ ~Mx)
(∃x)(Sx ∧ ~Mx)
∴ (∀x)(Sx > Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ ~M	S ∧ ~M	S > P
1	1	1	1	0	0	1
2	1	1	0	0	0	0
3	1	0	1	1	1	1
4	1	0	0	0	1	0
5	0	1	1	0	0	1
6	0	1	0	0	0	1
7	0	0	1	1	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: III-OOA

Some M is not P.
Some M is not S.
∴ All S is P.

(∃x)(Mx ∧ ~Px)
(∃x)(Mx ∧ ~Sx)
∴ (∀x)(Sx > Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ ~P	M ∧ ~S	S > P
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	1
6	0	1	0	1	1	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: IV-OOA

Some P is not M.
Some M is not S.
∴ All S is P.

(∃x)(Px ∧ ~Mx)
(∃x)(Mx ∧ ~Sx)
∴ (∀x)(Sx > 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	1
6	0	1	0	0	1	1
7	0	0	1	1	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: I-OOE

Some M is not P.
Some S is not M.
∴ All S is not P.

(∃x)(Mx ∧ ~Px)
(∃x)(Sx ∧ ~Mx)
∴ (∀x)(Sx > ~Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ ~P	S ∧ ~M	S > ~P
1	1	1	1	0	0	0
2	1	1	0	1	0	1
3	1	0	1	0	1	0
4	1	0	0	0	1	1
5	0	1	1	0	0	1
6	0	1	0	1	0	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: II-OOE

Some P is not M.
Some S is not M.
∴ All S is not P.

(∃x)(Px ∧ ~Mx)
(∃x)(Sx ∧ ~Mx)
∴ (∀x)(Sx > ~Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ ~M	S ∧ ~M	S > ~P
1	1	1	1	0	0	0
2	1	1	0	0	0	1
3	1	0	1	1	1	0
4	1	0	0	0	1	1
5	0	1	1	0	0	1
6	0	1	0	0	0	1
7	0	0	1	1	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: III-OOE

Some M is not P.
Some M is not S.
∴ All S is not P.

(∃x)(Mx ∧ ~Px)
(∃x)(Mx ∧ ~Sx)
∴ (∀x)(Sx > ~Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	M ∧ ~P	M ∧ ~S	S > ~P
1	1	1	1	0	0	0
2	1	1	0	1	0	1
3	1	0	1	0	0	0
4	1	0	0	0	0	1
5	0	1	1	0	1	1
6	0	1	0	1	1	1
7	0	0	1	0	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: IV-OOE

Some P is not M.
Some M is not S.
∴ All S is not P.

(∃x)(Px ∧ ~Mx)
(∃x)(Mx ∧ ~Sx)
∴ (∀x)(Sx > ~Px)

	∃	∃	∃	∃	∃	∀
	S	M	P	P ∧ ~M	M ∧ ~S	S > ~P
1	1	1	1	0	0	0
2	1	1	0	0	0	1
3	1	0	1	1	0	0
4	1	0	0	0	0	1
5	0	1	1	0	1	1
6	0	1	0	0	1	1
7	0	0	1	1	0	1
8	0	0	0	0	0	1
	1	1	1	1	1	0

Form: I-OOI

Some M is not P.
Some S is not M.
∴ Some S is P.

(∃x)(Mx ∧ ~Px)
(∃x)(Sx ∧ ~Mx)
∴ (∃x)(Sx ∧ 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	0	1	1*
4	1	0	0	0	1	0
5	0	1	1	0	0	0
6	0	1	0	1	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: II-OOI

Some P is not M.
Some S is not M.
∴ Some S is P.

(∃x)(Px ∧ ~Mx)
(∃x)(Sx ∧ ~Mx)
∴ (∃x)(Sx ∧ Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ ~M	S ∧ ~M	S ∧ P
1	1	1	1	0	0	1*
2	1	1	0	0	0	0
3	1	0	1	1	1	1*
4	1	0	0	0	1	0
5	0	1	1	0	0	0
6	0	1	0	0	0	0
7	0	0	1	1	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: III-OOI

Some M is not P.
Some M is not S.
∴ Some S is P.

(∃x)(Mx ∧ ~Px)
(∃x)(Mx ∧ ~Sx)
∴ (∃x)(Sx ∧ Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ ~P	M ∧ ~S	S ∧ P
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
	1	1	1	1	1	0

Form: IV-OOI

Some P is not M.
Some M is not S.
∴ Some S is P.

(∃x)(Px ∧ ~Mx)
(∃x)(Mx ∧ ~Sx)
∴ (∃x)(Sx ∧ 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	0
	1	1	1	1	1	0

Form: I-OOO

Some M is not P.
Some S is not M.
∴ Some S is not P.

(∃x)(Mx ∧ ~Px)
(∃x)(Sx ∧ ~Mx)
∴ (∃x)(Sx ∧ ~Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ ~P	S ∧ ~M	S ∧ ~P
1	1	1	1	0	0	0
2	1	1	0	1	0	1*
3	1	0	1	0	1	0
4	1	0	0	0	1	1*
5	0	1	1	0	0	0
6	0	1	0	1	0	0
7	0	0	1	0	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: II-OOO

Some P is not M.
Some S is not M.
∴ Some S is not P.

(∃x)(Px ∧ ~Mx)
(∃x)(Sx ∧ ~Mx)
∴ (∃x)(Sx ∧ ~Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ ~M	S ∧ ~M	S ∧ ~P
1	1	1	1	0	0	0
2	1	1	0	0	0	1*
3	1	0	1	1	1	0
4	1	0	0	0	1	1*
5	0	1	1	0	0	0
6	0	1	0	0	0	0
7	0	0	1	1	0	0
8	0	0	0	0	0	0
	1	1	1	1	1	0

Form: III-OOO

Some M is not P.
Some M is not S.
∴ Some S is not P.

(∃x)(Mx ∧ ~Px)
(∃x)(Mx ∧ ~Sx)
∴ (∃x)(Sx ∧ ~Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	M ∧ ~P	M ∧ ~S	S ∧ ~P
1	1	1	1	0	0	0
2	1	1	0	1	0	1*
3	1	0	1	0	0	0
4	1	0	0	0	0	1*
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
	1	1	1	1	1	0

Form: IV-OOO

Some P is not M.
Some M is not S.
∴ Some S is not P.

(∃x)(Px ∧ ~Mx)
(∃x)(Mx ∧ ~Sx)
∴ (∃x)(Sx ∧ ~Px)

	∃	∃	∃	∃	∃	∃
	S	M	P	P ∧ ~M	M ∧ ~S	S ∧ ~P
1	1	1	1	0	0	0
2	1	1	0	0	0	1*
3	1	0	1	1	0	0
4	1	0	0	0	0	1*
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	0
	1	1	1	1	1	0