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

All 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	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	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	1

Form: II-AAA

All 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	1	1	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*	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: III-AAA

All 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	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	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: IV-AAA

All 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	1	1	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*	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: I-AAE

All 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	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	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: II-AAE

All 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	1	1	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*	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: III-AAE

All 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	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	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: IV-AAE

All 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	1	1	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*	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: I-AAI (24)

All 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	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	1	0
8	0	0	0	1	1	0
	0+	1	1	1	1	0

Form: II-AAI

All 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	1	1	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*	1	0
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: III-AAI (19, 24)

All 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	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	1	0
8	0	0	0	1	1	0
	1	0+	1	1	1	0

Form: IV-AAI (19, 24)

All 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	1	1	0
3	1	0	1	0*	1	1*
4	1	0	0	1	1	0
5	0	1	1	1	0*	0
6	0	1	0	1	0*	0
7	0	0	1	0*	1	0
8	0	0	0	1	1	0
	0+	1	1	1	1	0

Form: I-AAO

All 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	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	1	0
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: II-AAO

All 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	1	1	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*	1	0
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: III-AAO

All 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	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	1	0
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: IV-AAO

All 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	1	1	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*	1	0
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: I-AEA

All 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	1	1	1
4	1	0	0	1	1	0
5	0	1	1	1	1	1
6	0	1	0	0*	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: II-AEA

All 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	1	0*	0
3	1	0	1	0*	1	1
4	1	0	0	1	1	0
5	0	1	1	1	1	1
6	0	1	0	1	1	1
7	0	0	1	0*	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: III-AEA

All 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	1	1	1
4	1	0	0	1	1	0
5	0	1	1	1	1	1
6	0	1	0	0*	1	1
7	0	0	1	1	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: IV-AEA

All 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	1	0*	0
3	1	0	1	0*	1	1
4	1	0	0	1	1	0
5	0	1	1	1	1	1
6	0	1	0	1	1	1
7	0	0	1	0*	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	0

Form: I-AEE

All 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	1	1	0
4	1	0	0	1	1	1
5	0	1	1	1	1	1
6	0	1	0	0*	1	1
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)

All 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	1	0*	1
3	1	0	1	0*	1	0
4	1	0	0	1	1	1
5	0	1	1	1	1	1
6	0	1	0	1	1	1
7	0	0	1	0*	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	1

Form: III-AEE

All 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	1	1	0
4	1	0	0	1	1	1
5	0	1	1	1	1	1
6	0	1	0	0*	1	1
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)

All 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	1	0*	1
3	1	0	1	0*	1	0
4	1	0	0	1	1	1
5	0	1	1	1	1	1
6	0	1	0	1	1	1
7	0	0	1	0*	1	1
8	0	0	0	1	1	1
	1	1	1	1	1	1

Form: I-AEI

All 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	1	1	1*
4	1	0	0	1	1	0
5	0	1	1	1	1	0
6	0	1	0	0*	1	0
7	0	0	1	1	1	0
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: II-AEI

All 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	1	0*	0
3	1	0	1	0*	1	1*
4	1	0	0	1	1	0
5	0	1	1	1	1	0
6	0	1	0	1	1	0
7	0	0	1	0*	1	0
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: III-AEI

All 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	1	1	1*
4	1	0	0	1	1	0
5	0	1	1	1	1	0
6	0	1	0	0*	1	0
7	0	0	1	1	1	0
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: IV-AEI

All 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	1	0*	0
3	1	0	1	0*	1	1*
4	1	0	0	1	1	0
5	0	1	1	1	1	0
6	0	1	0	1	1	0
7	0	0	1	0*	1	0
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: I-AEO

All 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	1	1	0
4	1	0	0	1	1	1*
5	0	1	1	1	1	0
6	0	1	0	0*	1	0
7	0	0	1	1	1	0
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: II-AEO (24)

All 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	1	0*	1*
3	1	0	1	0*	1	0
4	1	0	0	1	1	1*
5	0	1	1	1	1	0
6	0	1	0	1	1	0
7	0	0	1	0*	1	0
8	0	0	0	1	1	0
	0+	1	1	1	1	0

Form: III-AEO

All 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	1	1	0
4	1	0	0	1	1	1*
5	0	1	1	1	1	0
6	0	1	0	0*	1	0
7	0	0	1	1	1	0
8	0	0	0	1	1	0
	1	1	1	1	1	0

Form: IV-AEO (24)

All 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	1	0*	1*
3	1	0	1	0*	1	0
4	1	0	0	1	1	1*
5	0	1	1	1	1	0
6	0	1	0	1	1	0
7	0	0	1	0*	1	0
8	0	0	0	1	1	0
	0+	1	1	1	1	0

Form: I-AIA

	∃ S	∃ M	∃ P	∀ M > P	∃ S ∧ M	∀ S > P
All M is P.	1	1	1	1	1	1
Some S is M.	1	1	0	0*	1	0
∴ All S is P.	1	0	1	1	0	1
	1	0	0	1	0	0
(∀x)(Mx > Px)	0	1	1	1	0	1
(∃x)(Sx ∧ Mx)	0	1	0	0*	0	1
∴ (∀x)(Sx > Px)	0	0	1	1	0	1
	0	0	0	1	0	1
	1	1	1	1	1	0

Form: II-AIA

	∃ S	∃ M	∃ P	∀ P > M	∃ S ∧ M	∀ S > P
All P is M.	1	1	1	1	1	1
Some S is M.	1	1	0	1	1	0
∴ All S is P.	1	0	1	0*	0	1
	1	0	0	1	0	0
(∀x)(Px > Mx)	0	1	1	1	0	1
(∃x)(Sx ∧ Mx)	0	1	0	1	0	1
∴ (∀x)(Sx > Px)	0	0	1	0*	0	1
	0	0	0	1	0	1
	1	1	1	1	1	0

Form: III-AIA

	∃ S	∃ M	∃ P	∀ M > P	∃ M ∧ S	∀ S > P
All M is P.	1	1	1	1	1	1
Some M is S.	1	1	0	0*	1	0
∴ All S is P.	1	0	1	1	0	1
	1	0	0	1	0	0
(∀x)(Mx > Px)	0	1	1	1	0	1
(∃x)(Mx ∧ Sx)	0	1	0	0*	0	1
∴ (∀x)(Sx > Px)	0	0	1	1	0	1
	0	0	0	1	0	1
	1	1	1	1	1	0

Form: IV-AIA

	∃ S	∃ M	∃ P	∀ P > M	∃ M ∧ S	∀ S > P
All P is M.	1	1	1	1	1	1
Some M is S.	1	1	0	1	1	0
∴ All S is P.	1	0	1	0*	0	1
	1	0	0	1	0	0
(∀x)(Px > Mx)	0	1	1	1	0	1
(∃x)(Mx ∧ Sx)	0	1	0	1	0	1
∴ (∀x)(Sx > Px)	0	0	1	0*	0	1
	0	0	0	1	0	1
	1	1	1	1	1	0

Form: I-AIE

	∃ S	∃ M	∃ P	∀ M > P	∃ S ∧ M	∀ S > ~P
All M is P.	1	1	1	1	1	0
Some S is M.	1	1	0	0*	1	1
∴ All S is not P.	1	0	1	1	0	0
	1	0	0	1	0	1
(∀x)(Mx > Px)	0	1	1	1	0	1
(∃x)(Sx ∧ Mx)	0	1	0	0*	0	1
∴ (∀x)(Sx > ~Px)	0	0	1	1	0	1
	0	0	0	1	0	1
	1	1	1	1	1	0

Form: II-AIE

	∃ S	∃ M	∃ P	∀ P > M	∃ S ∧ M	∀ S > ~P
All P is M.	1	1	1	1	1	0
Some S is M.	1	1	0	1	1	1
∴ All S is not P.	1	0	1	0*	0	0
	1	0	0	1	0	1
(∀x)(Px > Mx)	0	1	1	1	0	1
(∃x)(Sx ∧ Mx)	0	1	0	1	0	1
∴ (∀x)(Sx > ~Px)	0	0	1	0*	0	1
	0	0	0	1	0	1
	1	1	1	1	1	0

Form: III-AIE

	∃ S	∃ M	∃ P	∀ M > P	∃ M ∧ S	∀ S > ~P
All M is P.	1	1	1	1	1	0
Some M is S.	1	1	0	0*	1	1
∴ All S is not P.	1	0	1	1	0	0
	1	0	0	1	0	1
(∀x)(Mx > Px)	0	1	1	1	0	1
(∃x)(Mx ∧ Sx)	0	1	0	0*	0	1
∴ (∀x)(Sx > ~Px)	0	0	1	1	0	1
	0	0	0	1	0	1
	1	1	1	1	1	0

Form: IV-AIE

	∃ S	∃ M	∃ P	∀ P > M	∃ M ∧ S	∀ S > ~P
All P is M.	1	1	1	1	1	0
Some M is S.	1	1	0	1	1	1
∴ All S is not P.	1	0	1	0*	0	0
	1	0	0	1	0	1
(∀x)(Px > Mx)	0	1	1	1	0	1
(∃x)(Mx ∧ Sx)	0	1	0	1	0	1
∴ (∀x)(Sx > ~Px)	0	0	1	0*	0	1
	0	0	0	1	0	1
	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.	1	1	1	1	1	1*
Some S is M.	1	1	0	0*	1	0
∴ Some S is P.	1	0	1	1	0	1*
	1	0	0	1	0	0
(∀x)(Mx > Px)	0	1	1	1	0	0
(∃x)(Sx ∧ Mx)	0	1	0	0*	0	0
∴ (∃x)(Sx ∧ Px)	0	0	1	1	0	0
	0	0	0	1	0	0
	1	1	1	1	0	0

Form: II-AII

	∃ S	∃ M	∃ P	∀ P > M	∃ S ∧ M	∃ S ∧ P
All P is M.	1	1	1	1	1	1*
Some S is M.	1	1	0	1	1	0
∴ Some S is P.	1	0	1	0*	0	1*
	1	0	0	1	0	0
(∀x)(Px > Mx)	0	1	1	1	0	0
(∃x)(Sx ∧ Mx)	0	1	0	1	0	0
∴ (∃x)(Sx ∧ Px)	0	0	1	0*	0	0
	0	0	0	1	0	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.	1	1	1	1	1	1*
Some M is S.	1	1	0	0*	1	0
∴ Some S is P.	1	0	1	1	0	1*
	1	0	0	1	0	0
(∀x)(Mx > Px)	0	1	1	1	0	0
(∃x)(Mx ∧ Sx)	0	1	0	0*	0	0
∴ (∃x)(Sx ∧ Px)	0	0	1	1	0	0
	0	0	0	1	0	0
	1	1	1	1	0	0

Form: IV-AII

	∃ S	∃ M	∃ P	∀ P > M	∃ M ∧ S	∃ S ∧ P
All P is M.	1	1	1	1	1	1*
Some M is S.	1	1	0	1	1	0
∴ Some S is P.	1	0	1	0*	0	1*
	1	0	0	1	0	0
(∀x)(Px > Mx)	0	1	1	1	0	0
(∃x)(Mx ∧ Sx)	0	1	0	1	0	0
∴ (∃x)(Sx ∧ Px)	0	0	1	0*	0	0
	0	0	0	1	0	0
	1	1	1	1	1	0

Form: I-AIO

	∃ S	∃ M	∃ P	∀ M > P	∃ S ∧ M	∃ S ∧ ~P
All M is P.	1	1	1	1	1	0
Some S is M.	1	1	0	0*	1	1*
∴ Some S is not P.	1	0	1	1	0	0
	1	0	0	1	0	1*
(∀x)(Mx > Px)	0	1	1	1	0	0
(∃x)(Sx ∧ Mx)	0	1	0	0*	0	0
∴ (∃x)(Sx ∧ ~Px)	0	0	1	1	0	0
	0	0	0	1	0	0
	1	1	1	1	1	0

Form: II-AIO

	∃ S	∃ M	∃ P	∀ P > M	∃ S ∧ M	∃ S ∧ ~P
All P is M.	1	1	1	1	1	0
Some S is M.	1	1	0	1	1	1*
∴ Some S is not P.	1	0	1	0*	0	0
	1	0	0	1	0	1*
(∀x)(Px > Mx)	0	1	1	1	0	0
(∃x)(Sx ∧ Mx)	0	1	0	1	0	0
∴ (∃x)(Sx ∧ ~Px)	0	0	1	0*	0	0
	0	0	0	1	0	0
	1	1	1	1	1	0

Form: III-AIO

	∃ S	∃ M	∃ P	∀ M > P	∃ M ∧ S	∃ S ∧ ~P
All M is P.	1	1	1	1	1	0
Some M is S.	1	1	0	0*	1	1*
∴ Some S is not P.	1	0	1	1	0	0
	1	0	0	1	0	1*
(∀x)(Mx > Px)	0	1	1	1	0	0
(∃x)(Mx ∧ Sx)	0	1	0	0*	0	0
∴ (∃x)(Sx ∧ ~Px)	0	0	1	1	0	0
	0	0	0	1	0	0
	1	1	1	1	1	0

Form: IV-AIO

	∃ S	∃ M	∃ P	∀ P > M	∃ M ∧ S	∃ S ∧ ~P
All P is M.	1	1	1	1	1	0
Some M is S.	1	1	0	1	1	1*
∴ Some S is not P.	1	0	1	0*	0	0
	1	0	0	1	0	1*
(∀x)(Px > Mx)	0	1	1	1	0	0
(∃x)(Mx ∧ Sx)	0	1	0	1	0	0
∴ (∃x)(Sx ∧ ~Px)	0	0	1	0*	0	0
	0	0	0	1	0	0
	1	1	1	1	1	0

Form: I-AOA

		∃	∃	∃	∀	∃	∀
		S	M	P	M>P	S∧˜M	S>P
All M is P.	1	1	1	1	1	0	1
Some 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	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	1	0	1
		1	1	1	1	1	0

Form: II-AOA

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

Form: III-AOA

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

Form: IV-AOA

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

Form: I-AOE

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

Form: II-AOE

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

Form: III-AOE

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

Form: IV-AOE

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

Form: I-AOI

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

Form: II-AOI

		∃	∃	∃	∀	∃	∃
		S	M	P	P>M	S∧˜M	S∧P
All P is M.	1	1	1	1	1	0	1*
Some 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	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	1	0	0
		1	1	1	1	1	0

Form: III-AOI

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

Form: IV-AOI

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

Form: I-AOO

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

		∃	∃	∃	∀	∃	∃
		S	M	P	P>M	S∧˜M	S∧˜P
All P is M.	1	1	1	1	1	0	0
Some 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	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	1	0	0
		1	1	1	1	0	0

Form: III-AOO

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

Form: IV-AOO

		∃	∃	∃	∀	∃	∃
		S	M	P	P>M	M∧˜S	S∧˜P
All P is M.	1	1	1	1	1	0	0
Some M is not S.	2	1	1	0	1	0	1*
∴ Some S is not P.	3	1	0	1	0*	0	0
	4	1	0	0	1	0	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*	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

		∃	∃	∃	∀	∀	∀
		S	M	P	M > ˜P	S > ˜M	S > P
All M is not P.	1	1	1	1	0*	0*	1
All S is not M.	2	1	1	0	1	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	0*	1	1
(∀x)(Sx > ˜Mx)	6	0	1	0	1	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-EEA

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

		∃	∃	∃	∀	∀	∀
		S	M	P	M > ˜P	M > ˜S	S > P
All M is not P.	1	1	1	1	0*	0*	1
All M is not S.	2	1	1	0	1	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	0*	1	1
(∀x)(Mx > ˜Sx)	6	0	1	0	1	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-EEA

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

		∃	∃	∃	∀	∀	∀
		S	M	P	M > ˜P	S > ˜M	S > ˜P
All M is not P.	1	1	1	1	0*	0*	0
All S is not M.	2	1	1	0	1	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	0*	1	1
(∀x)(Sx > ˜Mx)	6	0	1	0	1	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-EEE

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

		∃	∃	∃	∀	∀	∀
		S	M	P	M > ˜P	M > ˜S	S > ˜P
All M is not P.	1	1	1	1	0*	0*	0
All M is not S.	2	1	1	0	1	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	0*	1	1
(∀x)(Mx > ˜Sx)	6	0	1	0	1	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-EEE

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

		∃	∃	∃	∀	∀	∃
		S	M	P	M > ˜P	S > ˜M	S ∧ P
All M is not P.	1	1	1	1	0*	0*	1*
All S is not M.	2	1	1	0	1	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	0*	1	0
(∀x)(Sx > ˜Mx)	6	0	1	0	1	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-EEI

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

		∃	∃	∃	∀	∀	∃
		S	M	P	M > ˜P	M > ˜S	S ∧ P
All M is not P.	1	1	1	1	0*	0*	1*
All M is not S.	2	1	1	0	1	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	0*	1	0
(∀x)(Mx > ˜Sx)	6	0	1	0	1	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-EEI

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

		∃	∃	∃	∀	∀	∃
		S	M	P	M > ˜P	S > ˜M	S ∧ ˜P
All M is not P.	1	1	1	1	0*	0*	0
All S is not M.	2	1	1	0	1	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	0*	1	0
(∀x)(Sx > ˜Mx)	6	0	1	0	1	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-EEO

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

		∃	∃	∃	∀	∀	∃
		S	M	P	M > ˜P	M > ˜S	S ∧ ˜P
All M is not P.	1	1	1	1	0*	0*	0
All M is not S.	2	1	1	0	1	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	0*	1	0
(∀x)(Mx > ˜Sx)	6	0	1	0	1	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-EEO

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

$(\forall x)(Mx > {\sim}Px)$
$(\exists x)(Sx \wedge {\sim}Mx)$
∴ $(\forall x)(Sx > Px)$

	∃ 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.

$(\forall x)(Px > {\sim}Mx)$
$(\exists x)(Sx \wedge {\sim}Mx)$
∴ $(\forall x)(Sx > Px)$

	∃ 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.

$(\forall x)(Mx > {\sim}Px)$
$(\exists x)(Mx \wedge {\sim}Sx)$
∴ $(\forall x)(Sx > Px)$

	∃ 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.

$(\forall x)(Px > {\sim}Mx)$
$(\exists x)(Mx \wedge {\sim}Sx)$
∴ $(\forall x)(Sx > Px)$

	∃ 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.

$(\forall x)(Mx > {\sim}Px)$
$(\exists x)(Sx \wedge {\sim}Mx)$
∴ $(\forall x)(Sx > {\sim}Px)$

	∃ 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.

$(\forall x)(Px > {\sim}Mx)$
$(\exists x)(Sx \wedge {\sim}Mx)$
∴ $(\forall x)(Sx > {\sim}Px)$

	∃ 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.

$(\forall x)(Mx > {\sim}Px)$
$(\exists x)(Mx \wedge {\sim}Sx)$
∴ $(\forall x)(Sx > {\sim}Px)$

	∃ 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.

$(\forall x)(Px > {\sim}Mx)$
$(\exists x)(Mx \wedge {\sim}Sx)$
∴ $(\forall x)(Sx > {\sim}Px)$

	∃ 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.

$(\forall x)(Mx > {\sim}Px)$
$(\exists x)(Sx \wedge {\sim}Mx)$
∴ $(\exists x)(Sx \wedge Px)$

	∃ 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.

$(\forall x)(Px > {\sim}Mx)$
$(\exists x)(Sx \wedge {\sim}Mx)$
∴ $(\exists x)(Sx \wedge Px)$

	∃ 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.

$(\forall x)(Mx > {\sim}Px)$
$(\exists x)(Mx \wedge {\sim}Sx)$
∴ $(\exists x)(Sx \wedge Px)$

	∃ 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.

$(\forall x)(Px > {\sim}Mx)$
$(\exists x)(Mx \wedge {\sim}Sx)$
∴ $(\exists x)(Sx \wedge Px)$

	∃ 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.

$(\forall x)(Mx > {\sim}Px)$
$(\exists x)(Sx \wedge {\sim}Mx)$
∴ $(\exists x)(Sx \wedge {\sim}Px)$

	∃ 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.

$(\forall x)(Px > {\sim}Mx)$
$(\exists x)(Sx \wedge {\sim}Mx)$
∴ $(\exists x)(Sx \wedge {\sim}Px)$

	∃ 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.

$(\forall x)(Mx > {\sim}Px)$
$(\exists x)(Mx \wedge {\sim}Sx)$
∴ $(\exists x)(Sx \wedge {\sim}Px)$

	∃ 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.

$(\forall x)(Px > {\sim}Mx)$
$(\exists x)(Mx \wedge {\sim}Sx)$
∴ $(\exists x)(Sx \wedge {\sim}Px)$

	∃ 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.
(∃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	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.
(∃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	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.
(∃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	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.
(∃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	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.
(∃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	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.
(∃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	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.
(∃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	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.
(∃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	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.
(∃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	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

(Rows 1 and 3 highlighted; final column cells 1* highlighted.)

Form: II-III

Some 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	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

(Rows 1 and 3 highlighted.)

Form: III-III

Some 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	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

(Rows 1 and 3 highlighted.)

Form: IV-III

Some 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	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

(Rows 1 and 3 highlighted.)

Form: I-IIO

Some 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	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

(Rows 2 and 4 highlighted.)

Form: II-IIO

Some 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	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

(Rows 2 and 4 highlighted.)

Form: III-IIO

Some 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	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

(Rows 2 and 4 highlighted.)

Form: IV-IIO

Some 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	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

(Rows 2 and 4 highlighted.)

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

(Rows 1 and 3 highlighted)

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

(Rows 1 and 3 highlighted)

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

(Rows 1 and 3 highlighted)

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

(Rows 1 and 3 highlighted)

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

(Rows 2 and 4 highlighted)

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

(Rows 2 and 4 highlighted)

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

(Rows 2 and 4 highlighted)

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

(Rows 2 and 4 highlighted)

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

		∃	∃	∃	∃	∃	∀
		S	M	P	M∧˜P	S∧M	S>P
Some M is not P.	1	1	1	1	0	1	1
Some 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	0	0	0
(∃x)(Mx∧˜Px)	5	0	1	1	0	0	1
(∃x)(Sx∧Mx)	6	0	1	0	1	0	1
∴ (∀x)(Sx>Px)	7	0	0	1	0	0	1
	8	0	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	1	0	1	1
Some 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	0	0	0
(∃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-OIA

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

		∃	∃	∃	∃	∃	∀
		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
∴ All 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	1
(∃x)(Sx∧Mx)	6	0	1	0	1	0	1
∴ (∀x)(Sx>˜Px)	7	0	0	1	0	0	1
	8	0	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	1	0	1	0
Some M is S.	2	1	1	0	1	1	1
∴ All 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	1
(∃x)(Mx∧Sx)	6	0	1	0	1	0	1
∴ (∀x)(Sx>˜Px)	7	0	0	1	0	0	1
	8	0	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	1	0	1	0
Some M is S.	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)(Mx∧Sx)	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: I-OII

		∃	∃	∃	∃	∃	∃
		S	M	P	M∧˜P	S∧M	S∧P
Some M is not P.	1	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	0

Form: II-OII

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

Form: IV-OII

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

Form: II-OIO

		∃	∃	∃	∃	∃	∃
		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*
∴ Some 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	0
(∃x)(Sx∧Mx)	6	0	1	0	0	0	0
∴ (∃x)(Sx∧˜Px)	7	0	0	1	1	0	0
	8	0	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	1	0	1	0
Some M is S.	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)(Mx∧Sx)	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	0

Form: IV-OIO

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

Form: I-OOA

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

Form: II-OOA

		∃ S	∃ M	∃ P	∃ P∧˜M	∃ S∧˜M	∀ S>P
Some P is not M.	1	1	1	1	0	0	1
Some 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	0	1	0
(∃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-OOA

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

Form: IV-OOA

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

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

Form: II-OOE

		∃ S	∃ M	∃ P	∃ P∧˜M	∃ S∧˜M	∀ S>˜P
Some P is not M.	1	1	1	1	0	0	0
Some 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	0	1	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-OOE

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

Form: IV-OOE

		∃ S	∃ M	∃ P	∃ P∧˜M	∃ M∧˜S	∀ S>˜P
Some P is not M.	1	1	1	1	0	0	0
Some M is not S.	2	1	1	0	0	0	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	1	1
(∃x)(Mx ∧ ˜Sx)	6	0	1	0	0	1	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: I-OOI

		∃ S	∃ M	∃ P	∃ M∧˜P	∃ S∧˜M	∃ S∧P
Some M is not P.	**1**	**1**	**1**	**1**	**0**	**0**	**1***
Some 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	0	1	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	0

Form: II-OOI

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

Form: III-OOI

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

Form: IV-OOI

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

Form: I-OOO

		∃ S	∃ M	∃ P	∃ M∧˜P	∃ S∧˜M	∃ S∧˜P
Some M is not P.	1	1	1	1	0	0	0
Some 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**	**0**	**1**	**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	0

Form: II-OOO

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

Form: III-OOO

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

Form: IV-OOO

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