

**Homework on §1.2**—assigned Mon 8/31 and due Wed 9/2

(i) Give your own example of four non-equivalent sentences that make up a “square of opposition”—i.e., two mutually exclusive sentences each of implies one of a pair of jointly exhaustive sentences and is contradictory to the other:

$$\textit{sentence 3} \nabla \textit{sentence 4}$$

$$\textit{sentence 1} \models \textit{sentence 3} \quad \textit{sentence 2} \models \textit{sentence 4}$$

$$\textit{sentence 1} \bowtie \textit{sentence 4} \quad \textit{sentence 2} \bowtie \textit{sentence 3}$$

$$\textit{sentence 1} \Delta \textit{sentence 2}$$

(The bottom three relations are enough to get you all the rest.)

(ii) Pick one pair of sentences from the square and briefly describe a possible world in which they have different truth values.