

Given :

1. Steve only likes easy courses.
2. Science courses are hard.
3. All the courses in the basketweaving department are easy.
4. BK301 is a basketweaving course.

Query : What course would Steve like?

Predicate logic:

1. $\forall x \text{ easy}(x) \rightarrow \text{likes}(\text{steve}, x)$
2. $\forall x \text{ science}(x) \rightarrow \sim \text{easy}(x)$
3. $\forall x \text{ basketweaving}(x) \rightarrow \text{easy}(x)$
4. $\text{basketweaving}(\text{BK301})$

The conclusion is encoded as $\text{likes}(\text{steve}, x)$.

CNF:

- (1) $\sim \text{easy}(x) \text{ or } \text{likes}(\text{steve}, x)$
- (2) $\sim \text{science}(x) \text{ or } \sim \text{easy}(x)$
- (3) $\sim \text{science}(x) \text{ or } \sim \text{easy}(x)$
- (4) $\sim \text{basketweaving}(x) \text{ or } \text{easy}(x)$
- (5) $\text{basketweaving}(\text{BK301})$

Assumption: $\sim \text{likes}(\text{steve}, x)$