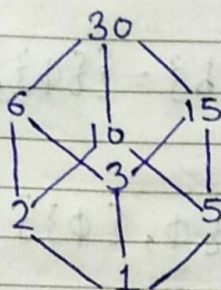


Section-5

Ans-1

(i) Hasse Diagram of D_{30}



(ii) Given: The home team wins whenever it is raining.
 q (Conclusion): The home team wins.
 p (hypothesis): It is raining.

Contrapositive: $\neg q \rightarrow \neg p$ is "If the home team does not win then it is not raining."

Converse: $q \rightarrow p$ is "If the home team wins then it is raining".

Inverse: $\neg p \rightarrow \neg q$ is "If it is not raining then the home team does not win".