

Solution

Given p is true and q is false

$$p \wedge q$$

$$p \wedge q = T \wedge F = F$$

truth value of $\neg q$ is false.

because q is false, $\neg q$ is true

therefore truth value of $\neg q$ is true

$$(p \wedge q) \Rightarrow \neg q = F \Rightarrow T = T$$

$(p \wedge q) \rightarrow \neg q$ is true