4. For the implication $((P \wedge Q) \vee R) \implies (R \vee S)$ to be false, then

$$((P \wedge Q) \vee R) = \text{true}$$
$$(R \vee S) = \text{false}$$

From the latter, both R and S must be false, so

$$(P \wedge Q) = \text{true}$$

This is only the case when both are true, thus

$$P = Q = \text{true}$$
$$R = S = \text{false}$$