

$p = \text{"The election is decided"}$

and $q = \text{"The votes have been counted,"}$

a) $\neg p$

= The election is not decided.

b) $p \vee q$

= The election is decided or the votes have been counted

c) $\neg p \wedge q$

= The election is not decided and the votes have been counted.

d) $q \rightarrow p$

= If the votes have been counted, the election is decided.

e) $\neg q \rightarrow \neg p$

= If the votes have not been counted, the election is not decided.

f) $\neg p \rightarrow \neg q$

= If the election is not decided, the votes have not been counted.

g) $p \leftrightarrow q$

= The election is decided only if the votes have been counted.

h) $\neg q \vee (\neg p \wedge q)$

= The votes have not been counted or the election is not decided and the votes have been counted.