

The case $|P| = 3$.

(1) $P = \{p, q, r\}$, $N_P(a) = pq$, $N_P(b) = r$.

(2) $P = \{p, q, r\}$, $N_P(a) = p$, $N_P(b) = q$, $N_P(a + b) = 1$.

(3) $P = \{p, q, r\}$, $N_P(a) = p$, $N_P(b) = q$, $N_P(a + b) = r$.

(i) $p = 2$,

(ii) $p, q \neq 2$.