The case $|P| = 4$.

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

(2) $P = \{p, q, r, s\},\ N_P(a) = p,\ N_P(b) = q,\ N_P(a+b) = r,\ N_P(2a+3b) = s.$

- (i) $p = 2,\ q \neq 3, 5,$
- (ii) $p = 2,\ q = 3,\ r \neq 5,$
- (iii) $p = 2,\ q = 3,\ r = 5,$
- (iv) $p = 2,\ q = 5,\ r \neq 3,$
- (v) $p = 2,\ q = 5,\ r = 3.$

(3) $P = \{p, q, r, s\},\ N_P(a) = p,\ N_P(b) = q,\ N_P(a+b) = r,\ N_P(a+3b) = s,\ N_P(2a+b) = 1.$

- (i) $p = 2,\ r \neq 3, 5,$
- (ii) $p = 2,\ r = 3,\ q \neq 5,$
- (iii) $p = 2,\ r = 3,\ q = 5,$
- (iv) $p = 2,\ r = 5,\ q \neq 3,$
- (v) $p = 2,\ r = 5,\ q = 3.$

(4) $P = \{p, q, r, s\},\ N_P(a) = p,\ N_P(b) = q,\ N_P(a+b) = r,\ N_P(a+3b) = s,\ N_P(2a+b) = s.$

- (i) $p = 2,\ q, r \neq 3,$
- (ii) $p = 2,\ q = 3,$
- (iii) $p = 2,\ r = 3.$

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

(6) $P = \{p, q, r, s\},\ N_P(a) = p,\ N_P(b) = q,\ N_P(a+b) = r,\ N_P(2a+b) = s,\ N_P(a+3b) = 1.$

- (i) $p = 2,\ q \neq 3, 5,$
- (ii) $p = 2,\ q = 3,\ r \neq 5,$
- (iii) $p = 2,\ q = 3,\ r = 5,$
- (iv) $p = 2,\ q = 5,\ r \neq 3,$
- (v) $p = 2,\ q = 5,\ r = 3.$

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

- (i) $p = 2,\ q \neq 5,$
- (ii) $p = 2,\ q = 5.$

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

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

- (i) $p \neq 3,\ r \neq 2,$

(ii) $p = 3,\ q \neq 5,\ r = 2,$

(iii) $p = 3,\ q = 5,\ r = 2,$

(iv) $p = 5,\ q \neq 3,\ r = 2,$

(v) $p = 5,\ q = 3,\ r = 2,$

(vi) $p \neq 3, 5,\ r = 2.$

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

(i) $r \neq 2,$

(ii) $p, q \neq 5,\ r = 2,$

(iii) $p = 5,\ r = 2.$

(11) $P = \{p, q, r, s\},\ N_P(a) = p,\ N_P(b) = q,\ N_P(a + b) = rs, \quad (p = 2).$

(12) $P = \{p, q, r, s\},\ N_P(a) = p,\ N_P(b) = q,\ N_P(a + b) = rs, \quad (p, q \neq 2).$

(13) $P = \{p, q, r, s\},\ N_P(a) = pq,\ N_P(b) = r,\ N_P(a + b) = s, \quad (p = 2).$

(14) $P = \{p, q, r, s\},\ N_P(a) = pq,\ N_P(b) = r,\ N_P(a + b) = s, \quad (r = 2).$

(15) $P = \{p, q, r, s\},\ N_P(a) = pq,\ N_P(b) = r,\ N_P(a + b) = s, \quad (p, q, r \neq 2).$

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

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

(18) $P = \{p, q, r, s\},\ N_P(a) = pqr,\ N_P(b) = s.$