$\in [2, n], p_i is prime numbers needed$
$a = p_1^{\alpha_1} \times p_2^{\alpha_2} \times ... \times p_n^{\alpha_n}$
$b = p_1^{\beta_1} \times p_2^{\beta_2} \times ... \times p_n^{\beta_n}$
$gcd(a, b) = p_1^{\min(\alpha_1, \beta_1)} \times p_2^{\min(\alpha_2, \beta_2)} \times ... \times p_n^{\min(\alpha_n, \beta_n)}$
$lcm(a, b) = p_1^{\max(\alpha_1, \beta_1)} \times p_2^{\max(\alpha_2, \beta_2)} \times ... \times p_n^{\max(\alpha_n, \beta_n)}$