

Q9 Find HCF and LCM of 270, 405 & 315 using fundamental Theorem of Arithmetic

Q10 Find LCM of 120 and 144 and verify the relation  $\text{LCM} \times \text{HCF} = \text{Product of 2 nos}$

Q11 If  $\alpha, \beta, \gamma$  are zeros of a cubic polynomial  $x^3 + 4x + 2$  then find value of  $\frac{1}{\alpha+\beta} + \frac{1}{\beta+\gamma} + \frac{1}{\gamma+\alpha}$ .

Q12 Find  $k$ , if the sum of the zeros of the polynomial  $x^2 - (k+6)x + 2(2k-1)$  is half their product.

Q13 If the zeros of the polynomial  $x^2 - px + q$  be in the ratio 2:3, prove that  $6p^2 = 25q$

Q14 If  $m, n$  are zeros of  $ax^2 - 5x + c$ , find the values of  $a$  and  $c$  if  $m+n = m \times n = 10$ .

Q15 Given  $\sqrt{2}$  is a zero of the cubic polynomial  $6x^3 + \sqrt{2}x^2 - 10x - 4\sqrt{2}$ , find its other zeros

Q16 If  $x^2 + x - 12$  divides  $p(x) = x^3 + ax^2 + bx - 84$  find  $a$  and  $b$ .

Q17 If  $(x+q)$  is a factor of 2 polynomials

$x^2 + px + q$  and  $x^2 + mx + n$ , then prove that  $a = \frac{n-q}{m-p}$ .