

**NPET'S ENGLISH MEDIUM SCHOOL**  
**CLUB ROAD BELGAUM**

**FA-2 Revision for Class X 2024-25**

---

1. Find the zeros of the quadratic polynomial  $x^2 + 7x + 12$  and verify the relation between the zeros and its coefficients.
2. Find the zeros of the quadratic polynomial  $p(x) = 6x^2 - 3$  and verify the relationship between the zeros and its coefficients.
3. Find the zeros of the polynomial  $f(u) = 4u^2 + 8u$  and verify the relationship between the zeros and its coefficients.
4. Find the zeros of the quadratic polynomial  $6x^2 - 3 - 7x$  and verify the relationship between the zeros and the coefficients.
5. If  $\alpha$  and  $\beta$  are the zeros of the quadratic polynomial  $f(x) = x^2 - px + q$ , then find the values of (i)  $\alpha^2 + \beta^2$  (ii)  $\frac{1}{\alpha} + \frac{1}{\beta}$
6. The product of two consecutive positive integers is 240. Formulate the quadratic equation whose roots are these integers.
7. Sum of the areas of two squares is  $468m^2$ . If the difference of their perimeters is  $24m$ , formulate the quadratic equation to find the sides of the two squares.
8. Find a quadratic polynomial whose sum and product of its zeros is 4 and 1.
9. Check whether  $x^2 - 2x = (-2)(3 - x)$  is a quadratic equation or not.
10. Is  $(x - 2)(x + 1) = (x - 1)(x + 3)$  a quadratic equation? Justify.
11. Solve for following quadratic equations by factorization method.

$$(i) \frac{x}{x+1} + \frac{x+1}{x} = \frac{34}{15}$$

$$(ii) \frac{x+3}{x-2} - \frac{1-x}{x} = \frac{17}{4}$$

$$(iii) \frac{x-1}{x+2} + \frac{x-3}{x-4} = \frac{10}{3}$$

$$(iv) \frac{1}{x+1} + \frac{2}{x+2} = \frac{4}{x+4}$$

12. Find a quadratic polynomial whose sum and product of its zeros is 4 and 1.
13. Roman's mother is 26 years older than him. The product of their ages 3 years from now will be 360. We would like to find Roman's present age. Write down relevant quadratic equation
14. Is it possible to design a rectangular mango grove whose length is twice its breadth, and the area is  $800\text{sq.m}$ ? If so, find its length and breadth.
15. A chess board contains 64 equal squares and the area of each square is  $6.25\text{cm}^2$ . A border round the board is 2 cm wide. Find the length of the side of the chess board.