

Centum Preparation 100 Days plan class 12 Maths

| Q. No. | DAY - 17 |
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| 94 | <p>Example 3.20</p> <p>Find the condition that the roots of $ax^3 + bx^2 + cx + d = 0$ are in geometric progression. Assume $a, b, c, d \neq 0$</p> |
| 95 | <p>Example 3.21</p> <p>If the roots of $x^3 + px^2 + qx + r = 0$ are in H.P. , prove that $9pqr = 27r^2 + 2q^3$. Assume $p, q, r \neq 0$</p> |
| 96 | <p>Example 3.22</p> <p>It is known that the roots of the equation $x^3 - 6x^2 - 4x + 24 = 0$ are in arithmetic progression. Find its roots.</p> |
| 97 | <p>EXERCISE 3.3</p> <p>1. Solve the cubic equation : $2x^3 - x^2 - 18x + 9 = 0$ if sum of two of its roots vanishes.</p> |
| 98 | <p>4. Determine k and solve the equation $2x^3 - 6x^2 + 3x + k = 0$ if one of its roots is twice the sum of the other two roots.</p> |
| 99 | <p>5. Find all zeros of the polynomial $x^6 - 3x^5 - 5x^4 + 22x^3 - 39x^2 - 39x + 135$, if it is known that $1 + 2i$ and $\sqrt{3}$ are two of its zeros.</p> |
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