

CLASS IX MATHS TEST ON POLYNOMIALS

M.M.: 25

TIME : 1 HR.

GENERAL INSTRUCTIONS

1. All questions are compulsory.
2. Marks are indicated against each question.
3. Use of calculator is not permitted. You may ask for logarithmic table, if required.
4. Answer questions in serial order as far as possible.

ALL THE BEST AND HAVE FAITH IN YOURSELF

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1. Find $P(0)$ and $P(1)$ for the following polynomial $P(x) = (x - 1)(x + 1)$. 2
 2. Verify whether the following are zeroes of the polynomial, indicated against the
 $P(x) = 3x^2 - 1$; $x = \frac{-1}{\sqrt{3}}, \frac{2}{\sqrt{3}}$ 2
 3. Find the zero of the polynomial : 2
a. $P(x) = ax$; $a \neq 0$ b. $P(x) = 2x + 5$
 4. Find the remainder when $x^3 + x^2 + 3x + 1$ is divided by $5 + 2x$. 2
 5. Find the value of k ; if $x - 1$ is a factor of $P(x) = kx^2 - \sqrt{2}x + 1$. 2
 6. Factorize : $6x^2 + 5x - 6$ 2
 7. Using suitable identities find the following product : $\left(y^2 + \frac{3}{2}\right)\left(y^2 - \frac{3}{2}\right)$. 2
 8. Evaluate 95×96 using identity. 2
 9. Factorize : $x^3 - 3x^2 - 9x - 5$. 3
 10. Factorize : $27x^3 + y^3 + z^3 - 9xyz$. 3
 11. Without actually calculating cubes find the value of : $(-12)^3 + (7)^3 + (5)^3$. 3