

Entrance test 8th Class 2023Paper: Mathematics

Note: All questions are compulsory. Calculators are not allowed. Write down formula where necessary and solve questions step by step.

All questions carry equal marks.

Q No. 1 Write the product of $(3y + 9)(7y - 3)$

Q No. 2 Simplify: $\frac{1}{4} + \frac{1}{8} - \frac{1}{3}$

Q No. 3 Find the length of a boundary of a square field whose area is 784m^2 .

Q No. 4 Prove that $b^0=1$ where b is non-zero rational number.

Q No. 5 Factorize: $a^4b^4x^2 - 2a^2b^2c^2d^2xy + c^4d^4y^4$

Q No. 6 Find the solution of following equation and verify the solution.

$$\frac{y+6}{2} = \frac{y+4}{3}$$

Q No. 7 Construct an equilateral triangle ΔXYZ whose base is 4.5 cm.

Q No. 8 If the base = 6 cm and Hypotenuse = 10 cm. Find perpendicular?

Q No. 9 The product of two polynomials is $6t^3 - 11t^2 + 6t - 1$. If one polynomial is $3t^2 - 4t + 1$, then find the other polynomial.

Q No. 10 Simplify and write in descending order: $4 + x^3 + x^4 - x^2 - x + 8 + 2x^4$

Q No. 11 Complete pattern:

(i) 2, 3, 5, 7, __, __, __, 19

(ii) 6, 11, 16, __, __, __,

Q No. 12 Simplify: $\frac{x^2z - 5z^2}{xyz}$ if $x = -1$, $y = -2$, $z = 2$