



1) Choose the correct alternative and write its alphabet with subquestion number

(4)

(1) Find the roots of quadratic equation : $x^2 - 2\sqrt{3x} + 3 = 0$

a) $x = 3$

c) $x = \sqrt{3}$

b) $x = \sqrt{6}$

d) $x = 2$

(2) Which of the following is not a quadratic equation?

a) $(x + 2)^2 = 2(x + 3)$

c) $x^2 + 3x = (-1)(1 - 3x)$

b) $(x + 2)(x - 1) = x^2 - 2x - 3$

d) $x^3 - x^2 + 2x + 1 = (x + 1)^3$

(3) Factorisation of $63x^2 - 112y^2$ is

a) $63(x - 2y)(x + 2y)$

c) $7(3x + 2y)(3x - 2y)$

b) $7(3x + 4y)(3x - 4y)$

d) None of these

(4) If the value of x is 3, $Dx = 12$ then the value of D is

a) 5

c) 3

b) 4

d) 1

2) Solve the following subquestions

(2)

(1) Write the following equations in the form of $ax^2 + bx + c = 0$ and find the value of a, b, c .

$2y = 10 - y^2$

(2) Solve the following quadratic equations by factorisation.

$7m^2 = 21m$

3) Solve the following

(4)

(1) Find the value of discriminant for each of the following equations.

$\sqrt{5}x^2 - x - \sqrt{5} = 0$

(2) Find the value of discriminant for following quadratic equations.

$2y^2 - 5y + 10 = 0$

4) Solve the following

(6)

(1) Solve the following quadratic equations by factorization.

$5m^2 = 22m + 15$

(2) Determine the nature of roots of the following quadratic from their discriminant.

$\sqrt{3}x^2 + \sqrt{2}x - 2\sqrt{3} = 0$

5) Solve the following questions**(4)**

- (1) The difference between squares of two number is 120. The square of smaller number is equal to twice the bigger number, find the numbers.
- (2) If α and β are the roots of the quadratic equation $y^2 - 2y - 7 = 0$, then find.
- (1) $\alpha^2 + \beta^2$ (2) $\alpha^3 + \beta^3$

All the Best

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