

PYQSide

JEE MAIN COMPLEX NUMBERS AND QUADRATIC EQUATIONS — NATURE OF ROOTS AND DISCRIMINANT — PYQS

Max. Marks: 12

Questions: 3

Section A (MCQ)

Q.1 The number of distinct real solutions of the equation $x|x+4| + 3|x+2| + 10 = 0$ is

[JEE Main 2026 (Online) 22nd January Morning Shift]

- (1) 2 (2) 3 (3) 0 (4) 1

Scan or tap for the
full solution



Q.2 Consider the equation $x^2 + 4x - n = 0$, where $n \in [20, 100]$ is a natural number. Then the number of all distinct values of n , for which the given equation has integral roots, is equal to

[JEE Main 2025 (Online) 4th April Morning Shift]

- (1) 6 (2) 5 (3) 8 (4) 7

Scan or tap for the
full solution



Q.3 Let the equation $x(x+2)(12-k) = 2$ have equal roots. Then the distance of the point $\left(k, \frac{k}{2}\right)$ from the line $3x + 4y + 5 = 0$ is

[JEE Main 2025 (Online) 3rd April Evening Shift]

- (1) 15 (2) 12 (3) $5\sqrt{3}$ (4) $15\sqrt{5}$

Scan or tap for the
full solution



ANSWER KEY

Ques.	1	2	3								
Ans.	4	1	1								