

JEE MAIN STRAIGHT LINES — DISTANCE OF A POINT FROM A LINE, DISTANCE BETWEEN PARALLEL LINES — PYQS

Max. Marks: 16
Questions: 4

Section A (MCQ) — 4 questions

- Q.1** A rectangle is formed by the lines $x = 0$, $y = 0$, $x = 3$ and $y = 4$. Let the line L be perpendicular to $3x + y + 6 = 0$ and divide the area of the rectangle into two equal parts. Then the distance of the point $\left(\frac{1}{2}, -5\right)$ from the line L is equal to :

[JEE Main 2026 (Online) 23rd January Morning Shift]

- (1) $\sqrt{10}$ (2) $2\sqrt{5}$ (3) $2\sqrt{10}$ (4) $3\sqrt{10}$

Scan or tap for the
full solution



- Q.2** Let a point A lie between the parallel lines L_1 and L_2 such that its distances from L_1 and L_2 are 6 and 3 units, respectively. Then the area (in sq. units) of the equilateral triangle ABC , where the points B and C lie on the lines L_1 and L_2 , respectively, is :

[JEE Main 2026 (Online) 21st January Morning Shift]

- (1) $21\sqrt{3}$ (2) $12\sqrt{2}$ (3) $15\sqrt{6}$ (4) 27

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- Q.3** Let a be the length of a side of a square $OABC$ with O being the origin. Its side OA makes an acute angle α with the positive x -axis and the equations of its diagonals are $(\sqrt{3} + 1)x + (\sqrt{3} - 1)y = 0$ and $(\sqrt{3} - 1)x - (\sqrt{3} + 1)y + 8\sqrt{3} = 0$. Then a^2 is equal to :

[JEE Main 2025 (Online) 8th April Evening Shift]

- (1) 48 (2) 16 (3) 24 (4) 32

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- Q.4** A line passes through the origin and makes equal angles with the positive coordinate axes. It intersects the lines $L_1: 2x + y + 6 = 0$ and $L_2: 4x + 2y - p = 0$, $p > 0$, at the points A and B , respectively. If $AB = \frac{9}{\sqrt{2}}$ and the foot of the perpendicular from the point A on the line L_2 is M , then $\frac{AM}{BM}$ is equal to

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

(1) 5

(2) 3

(3) 2

(4) 4

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ANSWER KEY

Ques.	1	2	3	4										
Ans.	3	1	1	2										