

JEE MAIN STRAIGHT LINES — SLOPE OF A LINE, ANGLE BETWEEN TWO LINES — PYQS

Max. Marks: 8
Questions: 2

Section A (MCQ) — 2 questions

- Q.1** A line passing through the point $P(a, 0)$ makes an acute angle α with the positive x -axis. Let this line be rotated about the point P through an angle $\frac{\alpha}{2}$ in the clockwise direction. If in the new position, the slope of the line is $2 - \sqrt{3}$ and its distance from the origin is $\frac{1}{\sqrt{2}}$, then the value of $3a^2 \tan^2 \alpha - 2\sqrt{3}$ is

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

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

Scan or tap for the full solution



- Q.2** Two equal sides of an isosceles triangle are along $-x + 2y = 4$ and $x + y = 4$. If m is the slope of its third side, then the sum of all possible distinct values of m is:

[JEE Main 2025 (Online) 28th January Evening Shift]

- (1) $-2\sqrt{10}$ (2) 12
(3) -6 (4) 6

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2									
Ans.	2	4									