

JEE MAIN STRAIGHT LINES — FAMILY OF LINES, CONCURRENCY — PYQs

Max. Marks: 12
Questions: 3

Section A (MCQ) — 3 questions

- Q.1** If a straight line drawn through the point of intersection of the lines $4x + 3y - 1 = 0$ and $3x + 4y - 1 = 0$, meets the co-ordinate axes at the points P and Q, then the locus of the mid point of PQ is : [JEE Main 2026 (Online) 8th April Evening Shift]
- (1) $x + y - 7 = 0$ (2) $x + y - 14xy = 0$
 (3) $2x + y + 14xy = 0$ (4) $x + 2y - 14xy = 0$

 Scan or tap for the
full solution


- Q.2** Among the statements
 (S1) : If A(5, -1) and B(-2, 3) are two vertices of a triangle, whose orthocentre is (0, 0), then its third vertex is (-4, -7)
 and
 (S2) : If positive numbers 2a, b, c are three consecutive terms of an A.P., then the lines $ax + by + c = 0$ are concurrent at (2, -2),
[JEE Main 2026 (Online) 22nd January Evening Shift]
- (1) both are incorrect (2) only (S2) is correct
 (3) both are correct (4) only (S1) is correct

 Scan or tap for the
full solution


- Q.3** Consider the lines $x(3\lambda + 1) + y(7\lambda + 2) = 17\lambda + 5$, λ being a parameter, all passing through a point P. One of these lines (say L) is farthest from the origin. If the distance of L from the point (3, 6) is d, then the value of d^2 is
[JEE Main 2025 (Online) 3rd April Evening Shift]
- (1) 10 (2) 20 (3) 15 (4) 30

 Scan or tap for the
full solution


ANSWER KEY

Ques.	1	2	3								
Ans.	2	3	2								