

PYQSide

JEE MAIN SETS — PYQs

Max. Marks: 16

Questions: 4

Section A (MCQ)

Q.1 Let $A = \{x: |x^2 - 10| \leq 6\}$ and $B = \{x: |x - 2| > 1\}$.

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

- (1) $A \cup B = (-\infty, 1] \cup (2, \infty)$
 (2) $B - A = (-\infty, -4) \cup (-2, 1) \cup (4, \infty)$
 (3) $A - B = [2, 3]$
 (4) $A \cap B = [-4, -2] \cup [3, 4]$

Scan or tap for the
full solution



Q.2 Let $A = \{(\alpha, \beta) \in \mathbb{R} \times \mathbb{R} : |\alpha - 1| \leq 4 \text{ and } |\beta - 5| \leq 6\}$

and

$\text{mathrmB} = (\alpha, \beta) \text{ in } \text{mathbbR times mathbbR} : 16(\alpha - 2)^2 + 9(\beta - 6) \leq 144\}$.

Then [JEE Main 2025 (Online) 7th April Evening Shift]

- (1) $A \subset B$
 (2) $B \subset A$
 (3) neither $A \subset B$ nor $B \subset A$
 (4) $A \cup B = \{(x, y) : -4 \leq x \leq 4, -1 \leq y \leq 11\}$

Scan or tap for the
full solution



Q.3 Let $A = \{1, 6, 11, 16, \dots\}$ and $B = \{9, 16, 23, 30, \dots\}$ be the sets consisting of the first 2025 terms of two arithmetic progressions. Then $n(A \cup B)$ is

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

- (1) 3814 (2) 4003 (3) 4027 (4) 3761

Scan or tap for the
full solution



Section B (Numerical)

Q.4 Let S be the set of the first 11 natural numbers. Then the number of elements in $A = \{B \subseteq S : n(B) \geq 2 \text{ and the product of all elements of } B \text{ is even}\}$ is _____.

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

Scan or tap for the
full solution



ANSWER KEY

Section A (MCQ)

Ques.	1	2	3								
Ans.	2	2	4								

Section B (Numerical)

Ques.	4						
Ans.	1979						