



MATHS

BOOKS - JEE MAINS PREVIOUS YEAR

MATHEMATICAL REASONING



1. Let S be a non-empty subset of R. Consider the following statement: P: There is a rational number $x \in S$ such that x > 0.

Which of the following statements is the negation of the statement P? There is no rational number $x \in S$ such that $x \leq 0$ (9) Every rational number $x \in S$ satisfies $x \leq 0$ (18) $x \in S$ and $x < 0 \Rightarrow x$ (27) is not rational There is a rational number $x \in S$ such that $x \leq 0$ (36)

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2. The statement $\sim (p \leftrightarrow \sim q)$ is (1) equivalent to $p \leftrightarrow q$ (2) equivalent to $\sim p \leftrightarrow q$ (3) a tautology (4) a fallacy



3. The negation of ${ imes} s \lor ({ imes} r \land s)$ is equivalent

to : (1) $s \wedge extsf{-}r$ (2) $s \wedge (r \wedge extsf{-}s)$ (3) $s \vee (r \vee extsf{-}s)$

(4) $s \wedge r$

