MATHS

BOOKS - JEE MAINS PREVIOUS YEAR

B.Arch 2021 (B)

Question

1. If z_1 and z_2 are two non zero

$comp \leq x\nu mbersucht$^|z_1+z_2|=|z_1|+|z_2|

$then$arg z_1-argz_2$isequal \rightarrow (A)$- pi/2(B)0 (C)-pi(D)pi/2`

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2. If $0 < P(A) < 1, 0 < P(B) < 1$ and $P(A \cup B) = P(A) + P(B) - P(A)P(B)$, then

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3. If $f:(1,\infty)\to(2,\infty)$ is given by $f(n)=n+1$, then $f^{-1}(n)$ equals to?

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4. The point on the curve $y^2+3x=12y$, when the tangent is vertical, is (are)?

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5. If a circle passes through the point (a, b) and cuts the circle $x^2 + y^2 = k^2$ orthogonally, then the equation of the locus of its center is

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6. If B, C are square matrices of order n and if $A = B + C$,$BC = CB, C^2 = O,$ then without using mathematical induction, show that for any positive integer $p, A^{p+1} = B^p[B + (p+1)C]$.

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7. The area bounded by the curves $y = \sqrt{x}, 2y + 3 = x,$ and x-axis in the 1st quadrant is 18 sq. units (b) $\frac{27}{4}$s qu n i t s $\frac{4}{3}$s qu n i t s (d) 9 sq. units

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