MATHS

BOOKS - JEE MAINS PREVIOUS YEAR

BINOMIAL THEOREM

Others

1. The sum of the series ${}^{20}C_0 - {}^{20}C_1 + {}^{20}C_2 - {}^{20}C_3 + \ldots - \ldots + {}^{20}C_{10}$ is:

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2. In a binomial distribution $B\left(n, p = \frac{1}{4}\right)$, if the probability of at least one success is greater than or equal to $\frac{9}{10}$, then n is greater than (1)

$\frac{1}{(\log)_{10}^4 - (\log)_{10}^3}$ (2) $\frac{1}{(\log)_{10}^4 + (\log)_{10}^3}$ (3) $\frac{9}{(\log)_{10}^4 - (\log)_{10}^3}$ (4) $\frac{4}{(\log)_{10}^4 - (\log)_{10}^3}$

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3. The remainder left out when $8^{2n}(62)^{2n+1}$ is divided by 9 is (1) 0 (2) 2 (3) 7 (4) 8

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4. The sum of coefficients of integral powers of x in the binomial expansion of $\left(1 - 2\sqrt{x}\right)^{50}$ is:

(1) $\frac{1}{2}\left(3^{50} + 1\right)$

(2) $\frac{1}{2}\left(3^{50}\right)$

(3) $\frac{1}{2}\left(3^{50} - 1\right)$

(4) $\frac{1}{2}\left(2^{50} + 1\right)$

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5. The value of $\left(.^{21}C_1 - .^{10}C_1\right) + \left(.^{21}C_2 - .^{10}C_2\right) + \left(.^{21}C_3 - .^{10}C_3\right) + \left(.^{21}C_4 - .^{10}C_4\right.$ is