Questions with Answer Keys MathonGo Will mathongo /// mathongo /// mathongo /// mathongo /// mathongo /// mathongo /// mathongo Let 3, a, b, c be in A.P. and 3, a - 1, b + 1, c + 9 be in G.P. Then, the arithmetic mean of a, b and c is: (1) -4 mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo (2) -1(3) 13 athongo /// mathongo /// mathongo /// mathongo /// mathongo (4) 11 mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo Q2 - 2024 (01 Feb Shift 1) mathongo ///. mathongo ///. mathongo ///. mathongo Let $3, 7, 11, 15, \ldots, 403$ and $2, 5, 8, 11, \ldots, 404$ be two arithmetic progressions. Then the sum, of the common terms in them, is equal to Q3 - 2024 (01 Feb Shift 2) mathongo /// mathongo /// mathongo /// mathongo Let S_n denote the sum of the first n terms of an arithmetic progression. If $S_{10} = 390$ and the ratio of the tenth and the fifth terms is 15:7, then $S_{15}-S_{5}$ is equal to: (1) 800athongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo (2)890(3)790(4) 690athongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo Q4 - 2024 (01 Feb Shift 2) If three successive terms of a G.P. with common ratio r(r > 1) are the lengths of the sides of a triangle and [r] denotes the greatest integer less than or equal to r, then 3[r]+[-r] is equal to : W. mathongo W. mathongo W. mathongo W. mathongo W. mathongo W. mathongo The number of common terms in the progressions 4, 9, 14, 19,, up to 25th term and 3, 6, 9, 12, up to $37^{\rm th}$ term is : mathongo /// mathongo /// mathongo /// mathongo /// mathongo /// mathongo mathonso // mathon

Questions with Answer Keys MathonGo (2) 5 mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo (4) 8(2) 5 mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo (3)7mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo Q6 - 2024 (27 Jan Shift 1) $8=3+rac{1}{4}(3+p)+rac{1}{4^2}(3+2p)+rac{1}{4^3}(3+3p)+\dots\infty,$ mathongo /// mathongo /// mathongo Q7 - 2024 (27 Jan Shift 2) mathongo ///. mathongo ///. mathongo ///. mathongo The 20^{th} term from the end of the progression $20, 19\frac{1}{4}, 18\frac{1}{2}, 17\frac{3}{4}, \dots, -129\frac{1}{4}$ is :-(1) -118(2) -110(3) -115thongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo (4) -100///. mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo Q8 - 2024 (29 Jan Shift 1) mathongo ///. mathongo ///. mathongo ///. mathongo If in a G.P. of 64 terms, the sum of all the terms is 7 times the sum of the odd terms of the G.P, then the common ratio of the G.P. is equal to mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo (2) 4_{mathongo} ///. mathongo ///. mathongo ///. mathongo ///. mathongo (3)5mathongo /// mathongo /// mathongo /// mathongo /// mathongo /// mathongo Do you want to practice these PYQs along with PYQs of JEE Main from 2002 till 2024?

Questions with Answer Keys MathonGo Q9 - 2024 (29 Jan Shift 1) mathongo ///. mathongo ///. mathongo ///. mathongo In an A.P., the sixth terms $a_6 = 2$. If the $a_1a_4a_5$ is the greatest, then the common difference of the A.P., is equal to mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo $(1)^{\frac{3}{2}}$ (2) $\frac{8}{5}$ mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo $(4) \frac{5}{8}$ Q10 - 2024 (29 Jan Shift 2) mathongo ///. mathongo ///. mathongo ///. mathongo If $\log_e a$, $\log_e b$, $\log_e c$ are in an A.P. and $\log_e a - \log_e 2b$, $\log_e 2b - \log_e 3c$, $\log_e 3c - \log_e a$ are also in an A.P. then a: b: c is equal to mathongo ///. mathongo ///. mathongo ///. mathongo (1) 9:6:4ongo /// mathongo /// mathongo /// mathongo /// mathongo (2) 16:4:1mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo (3) 25 : 10 : 4(4) 6:3:20ngo /// mathongo /// mathongo /// mathongo /// mathongo % mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo Q11 - 2024 (29 Jan Shift 2) If each term of a geometric progression a_1, a_2, a_3, \ldots with $a_1 = \frac{1}{8}$ and $a_2 \neq a_1$, is the arithmetic mean of the next two terms and $S_n=a_1+a_2+\ldots+a_n$, then $S_{20}-S_{18}$ is equal to mathong with mathon $(1) 2^{15}$ $\binom{\prime\prime\prime}{(2)}$ $\binom{-n}{2}$ mathongo $\binom{\prime\prime\prime}{(2)}$ mathongo $\binom{\prime\prime\prime}{(2)}$ mathongo $\binom{\prime\prime\prime}{(2)}$ mathongo (3) 2¹⁸ mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo $(4) - 2^{15}$ Q12 - 2024 (30 Jan Shift 1) mathongo /// mathongo /// mathongo /// mathongo Let S_a denote the sum of first n terms an arithmetic progression. If $S_{20} = 790$ and $S_{10} = 145$, then $S_{15} - S_5$ is /// mathongo /// mathongo /// mathongo /// mathongo /// mathongo

Questions with Answer Keys

MathonGo

(1) 395 athongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo

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(3) 405

(4) 410 athongo /// mathongo /// mathongo /// mathongo /// mathongo /// mathongo

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Q13 - 2024 (30 Jan Shift 1)

Let $\alpha=1^2+4^2+8^2+13^2+19^2+26^2+\ldots$ upto 10 terms and $\beta=\sum_{n=1}^{10}n^4$. If $4\alpha-\beta=55k+40$,

then k is equal to /// mathongo /// mathongo /// mathongo /// mathongo

/// mathongo /// mathongo /// mathongo /// mathongo /// mathongo /// mathongo

Let a and b be be two distinct positive real numbers. Let 11^{th} term of a GP, whose first term is a and third term is b, is equal to p^{th} term of another GP, whose first term is a and fifth term is a. Then a is equal to mathon a mathon a

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(2) 25 athongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo

(3) 21 mathongo /// mathongo /// mathongo /// mathongo /// mathongo /// mathongo /// mathongo

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Q15 - 2024 (30 Jan Shift 2) /// mathongo /// mathongo /// mathongo /// mathongo /// mathongo

Let S_n be the sum to n-terms of an arithmetic progression $3, 7, 11, \ldots$

If $40 < \left(\frac{n \cdot 6}{n(n+1)} \sum_{k=1}^n s_k\right) < 42$, then n equals ______. mathongo ______. mathongo ______.

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Q16 - 2024 (31 Jan Shift 1)

The sum of the series $\frac{1}{1-3\cdot 1^2+1^4} + \frac{2}{1-3\cdot 2^2+2^4} + \frac{3}{1-3\cdot 3^2+3^4} + \dots$ up to 10 terms is

 $\binom{1}{1}\frac{45}{109}$ athongo $\frac{1}{1}$ mathongo $\frac{1}{1}$ mathongo $\frac{1}{1}$ mathongo $\frac{1}{1}$ mathongo

(2) $-\frac{45}{109}$ mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo

(4) $\frac{-55}{109}$ thongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo

Mathongo W. mathongo W. mathongo W. mathongo W. mathongo Do you want to practice these PYQs along with PYQs of JEE Main from 2002 till 2024?

Questions with An	-				MathonGo
Q17 - 2024 (31 Jan	Shift 2)				
Let 2 nd , 8 th and	$44^{ m th}$, terms of a no	on-constant A.P. be 1	respectively the $1^{ m st}$	$,2^{ m nd}$ and $3^{ m rd}$ term	ns of G.P. If the
		of first 20 terms is eq	•		
(1) 980					
(2) 960 athongo					
(3) 990 mathongo (4) 970					
//. mathongo	// mathonso you want to practic	mathongo e these PYQs along	mathonso with PYQs of JEE N	Main from 2002 till 2	mathongo 2024?

Questions with Answer Keys MathonGo Answer Key mathongo /// mathongo /// mathongo /// mathongo /// mathongo Q1 (4) athongo /// matl Q2 (6699)/ mathongo / Q3 (3) thongo /// mat Q4 (1) /// mathongo Q5(3) athongo /// matlQ6(9) /// mathongo /Q7(3)thongo /// matQ8(4) /// mathongo Q9 (2) athongo /// mat/Q10 (1) /// mathongo / Q11 (4) hongo /// matQ12 (1) /// mathongo Q13 (353) ongo /// mat/Q14 (3) /// mathongo / Q15 (9) ongo /// mat/Q16 (4) /// mathongo Q17 (4) thongo ///. mathongo ///. mathongo ///. mathongo ///. mathongo